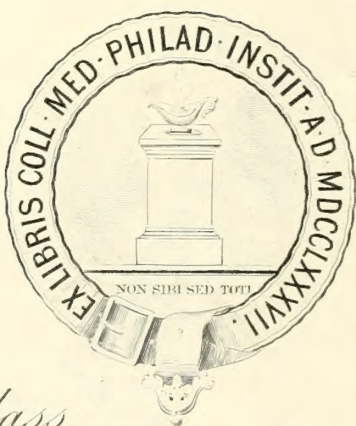






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THE

# AMERICAN PRACTITIONER AND NEWS:

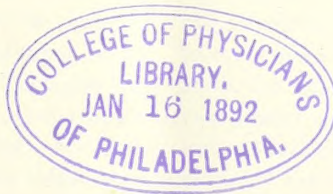
A BI-WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

*"Nec Tenui Pennâ."*

D. W. YANDELL, M. D., AND H. A. COTTELL, M. D., EDITORS.

VOLUMES XI AND XII—1891.



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# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.

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No. 1.

[NEW SERIES.]

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### MAMMOTH UNILOCULAR OVARIAN CYST.

BY A. M. CARTLEDGE, M. D.

*Professor of Surgery in the Louisville Medical College, Surgeon to the Louisville City Hospital, etc.*

To what extent the size of ovarian cysts influences the result after operation can only be determined by statistical classification of results in tumors between given weights, and I am not aware that this has ever been attempted in a systematic way. Sir Spencer Wells says, "The size of the tumor itself does not seem to be an obstacle to recovery, except when combined with solidity which necessitates greater length of incision." Aside from the above it certainly seems that the mortality must be greater in large cysts than in small or medium sized ones, the explanation being the greater probability of adhesions in the former, which are usually growths of long standing. Probably nothing except asepticism has done so much to lessen the mortality of ovariectomy as the now prevalent practice of early operation, if possible before any interference, such as tapping, and before the general health is much impaired by the presence of the growth. A case operated upon more than a year since has led me to investigate this interesting part of the subject of ovariectomy. Like most statistics it is somewhat one-sided. Writers seem inclined to report the voluminous cysts which have been successfully removed, while there is a notable absence of such cases as were unsuccessful. No doubt the number of mammoth cysts will markedly diminish in future, as the plan of early and successful operation is

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now so universally practiced. America seems to have furnished the largest proportion of very large ovarian tumors subjected to operation. The cause of this may be found in our great expanse of rural territory, many cases being so far removed from centers where ovariectomy is performed that they never find their way there at all, or not until the tumor has attained immense size. This condition will rapidly pass away by the growth of country and the multiplication of men doing abdominal surgery.

Among the largest authentic cases of ovarian cysts are the following:

That of W. L. Estes, reported at the Lehigh Valley Medical Association, 1887. Mrs. H., aged forty years; one child, nineteen years old; one miscarriage eighteen years ago; tumor of ten years' growth; circumference of abdomen at navel sixty-one inches. Operation lasted four hours and thirty minutes; two hundred ligatures applied, cautery also freely used; large rubber drainage-tube inserted. Highest temperature 100° F. on second day. Patient discharged well in twenty-six days. The tumor was a polycyst, which was undergoing intracystic papillary degeneration. Weight one hundred and twenty five pounds.

Dr. H. A. Kelly reports, in the Maryland Medical Journal, 1886, xv, 49, a case of ovarian tumor which was successfully removed. Weight one hundred pounds. Dr. Kelly also reports, in the American Medical Journal of Obstetrics, 1885, the case of Mrs. T., widow, aged forty-two years; married at twenty-one; four children at full term. Fifteen years before, after birth of her first child, it was noticed that her abdomen was as large as before the birth. Growth of tumor gradual. Diagnosis of cyst by aspirating with hypodermic syringe. Operation: Sac universally adherent; no ligatures used save at pedicle; drainage. Time



of operation over two hours. Temperature ranged from 100° to 101° F., dropping to 99° F. on fifth day. Patient recovered. Weight of tumor one hundred and sixteen pounds, which Dr. K. believes is the largest tumor ever removed in Philadelphia.

Dr. Goodell, Philadelphia Medical News, 1883. Patient, aged thirty-one. Operated at University Pennsylvania Hospital. Tumor had omental and parietal adhesions. Recovery. Weight of tumor one hundred and twelve pounds.

Dr. Keith, British Medical Journal, 1878, gives the following case: Case No. 237, April, 1877, aged fifty-three years: Adhesions universal, extensive to liver, large fibroid of uterus. Patient died. Weight of ovarian tumor ninety-five pounds.

Dr. G. E. Ramsey reports, Journal American Medical Association, 1884, a case of unilocular cyst successfully removed from a woman aged fifty-five years. Weight of tumor ninety-five pounds.

In Sir Spencer Wells' table of one thousand cases of completed ovariectomy there are five in which the tumor weighed over seventy pounds. Case 564, the cyst weighed one hundred and twenty-five pounds. The patient recovered. The remaining four cases are all under eighty-five pounds.

Case of D. T. F. Minor reported by Dr. Wall, Buffalo Medical and Surgical Journal, 1878. Patient died of exhaustion on sixth day. Tumor weighed ninety-five pounds.

Dr. D. W. Yandell, case of multilocular ovarian tumor occurring in a woman twenty years old. Operated May, 1870. Patient recovered. Weight one hundred and nineteen pounds.

There are vague references in medical literature to the immense size of ovarian tumors removed by this or that operator, but upon investigation their authenticity can not be established. My own case was that of Mrs. B., aged thirty years; native of Jackson County, Indiana; married five years ago; no children. She says the enlargement of her abdomen was first observed after an attack of typhoid fever when sixteen years old, and from then until now, fourteen years, the growth has been grad-

ual. Menstruation is regular and painless; appetite good. Her expression is cheerful, and she says except for the discomfort of the size of her abdomen she is as well as any woman in the land. Weight two hundred and ninety pounds. Examination of this woman revealed a distension of the abdominal cavity beyond any thing I thought the human belly capable of. Her naturally large frame rendered the enlargement less conspicuous, yet it was mammoth. Fluctuation could be freely elicited in all parts and entirely through the distension; circumference at navel sixty-six and one half inches; no edema of lower extremities; locomotion surprisingly good. Diagnosis, ovarian cyst, an operation advised. June 5, 1889, Drs. Yandell, Bailey, Burnett, Wilson, and others being present, the operation was performed. The patient could not lie on her back, so was placed on the right side. An incision four inches long was made, and the sac emptied by trocar. Twelve gallons of chocolate-colored fluid were removed, when the sac was found free from adhesions. After ligature of the pedicle and removal of sac, the cavity was dried and closed without irrigation or drainage. The quantity of redundant skin was quite enough to fill a half-bushel measure. After the external dressing was applied, and this was abundant in order to fill in space and make pressure, long adhesive straps were placed over the dressing and attached to the sides and back. Time of operation about thirty minutes. There was no appreciable shock, and reaction was prompt. No nausea or vomiting. The progress of the case was entirely without incident; temperature never went above 99° F., and no opium was given. Bowels moved by saline and enema on third day; after fourth day ordinary diet allowed. First dressing and stitches removed on ninth day. Union *per primam*. Sat up on twelfth day, and returned home, a distance of seventy miles, on the nineteenth day after operation. I received a letter from her husband dated August 21st, in which he says, "My wife goes where she pleases, has been to Ewington (six miles) three times." The operation was performed two days after menstruation, and she menstruated without pain at her following period. As stated before, there were just twelve gallons of fluid



collected, which weighed one hundred and eight pounds; the sac weighed three and one half pounds, making a total of one hundred and eleven and one half pounds. This is, I think, the largest unilocular cyst ever removed by operation.

At this date, more than eighteen months since the operation, the patient is in the best of health.

LOUISVILLE.

## DISPLACED LIVER: PARALYSIS OF THE SYMPATHETIC, RIGHT SIDE.

Report of two Clinical Cases Seen in Prof. Gerhardt's Clinic in Berlin, with a few Remarks.

BY LOUIS FRANK, M. D.

*Diseased Liver.* We present this morning a woman, aged thirty-eight years, who has been much sick, having had several times inflammation of the lungs, intestinal diseases, inflammation of the brain, and quite a number of other illnesses. These various troubles date back six years, since which time she has also had more or less vomiting and pain in the stomach. The vomited matter was on one occasion bloody. She has had intermittent attacks of fever. Since in the hospital she has had erysipelas, due to "house" infection. Swelling, or a tumor of the liver has been perceived. Pain has been so considerable as to have led to the morphia habit, and during paroxysms of pain, which lasted for several days, jaundice has been observed.

By examination of her now, we see that she is small, with not large bones, face somewhat red, skin brownish, conjunctiva clear, radial pulse regular, and temperature and respiration normal.

We perceive no abnormality in the shape of the chest, but in the abdomen see a tumor moving with respiration. By palpation the tumor can be felt to be large and firm. Percussion of the lungs shows nothing to arouse suspicions of chest disease. The lower border of the right lung extends to usual distance, but the upper border of the liver is not reached until we come farther down. The spleen is very much enlarged, as is also the left lobe of the liver. Liver presents on deep palpation the feel of a large,

rough, uneven tumor. It is freely movable with respiration, showing that it has not grown to any of the surroundings. It is misplaced downward and sideward, and has existed for six years.

The circulation of the bile in the liver has occasionally been interfered with, as shown by the attacks of jaundice. The blood-flow through the liver has never been interrupted, as shown by absence of ascites, which she would have were this a case of cirrhosis. Were the disease cancer she would not have lived so long. Many diseases have been excluded by the fact that the symptoms have never been very marked, and by the absence of all circulatory symptoms. Her general constitution not being affected is other evidence of a non-malignant disease.

The liver has atrophied in some and hypertrophied in other places. At some points, on account of shrinkage and atrophy, it is not to be felt, and at other points it presents as a rough, uneven tumor.

This disease is to be differentiated from other long-existing tumors, as cancer, echinococcus, and cirrhosis. All long-existing tumors of this organ should cause suspicion of displacement when occurring without any marked symptoms and without any marked cause.

The three main symptoms are: (1) A rough, uneven tumor or tumors. (2) Tumor-like swelling of the spleen, this being especially diagnostic. (3) The form of the liver, viz., its disappearance in some places, and its presence in others.

Cancer is differentiated by the cachexia, by jaundice, by its duration; cirrhosis, by ascites, and other diagnostic points. Echinococcus by the presence of the scolex or hooklets in the withdrawn fluid, also by the chemical constituents of the fluid, it being free from albumen, but showing the presence of sugar.

*Paralysis of Sympathetic, right side.* Woman, aged forty-four, Swedish. Her parents and four of five sisters died of tuberculosis. A brother is living who has the disease. The patient married at twenty-four, has had two children and two abortions. Had erysipelas three times, also convulsions repeatedly since a fright after delivery occasioned by her brother having an epileptic attack in her presence. She her-

self has had hysteric convulsions. Had a tumor of the right breast, which was extirpated last year.

She comes to us on account of her attacks, and also on account of pains in the stomach. She presents no cicatrices either of tongue or about the head, such as it is usual to find in epileptics. She has had no fever since coming here, her temperature being never more than  $37.3^{\circ}\text{C}$ . Her appetite is good, and she has increased in weight two kilograms since coming to the clinic.

The patient herself has noticed a peculiar thing, that she perspires more on the left side than on the right. There is a loss of sensations on the right side. By pricking with a pin muscular contractions are observed on the left side, while the right side remains perfectly quiet under the same conditions, the patient even not feeling it when the pin is stuck deep enough in the skin to remain sticking there when let go of.

We know that excessive perspiration occurs after violent exercise, in neuralgia or excessive pain, etc.

To prove or disprove her statements as to perspiration on one side, we will give her hypodermically a full dose of pilocarpine and observe its action.

You see now, a few moments after the injection, that her face is beginning to get red; she respires rapidly, and saliva is being excreted in the mouth; her respirations became more rapid, her face redder, and she begins to have muscular spasms, her hands jerking. She now has an attack of epilepsy caused by the injection, and you observe that now, six minutes after the administration of the drug, the right side of her face is perfectly dry, and the left side being covered by a profuse perspiration. Increase of perspiration on one side is due to paralysis of the cervical sympathetic on that side, and there should be present in that case contraction of the pupil on the same side, as shown by the experiments of Claude Bernard. But the pupil is not contracted on the left side and is contracted on the right; and we have just seen that under pilocarpine there is no increase of sweating on the right side, but an entire absence of it. This is accounted for by the

fact that there are two stages of paralysis of this nerve; in the first there is hyperidrosis on the same side, and in the second stage anhidrosis takes the place of the profuse sweating. The pupil is always contracted. This should always be noticed.

Tuberculosis or solidification of the apex of the lung, enlarged cervical glands, tumors, inflammation, etc., causing pressure on the sympathetic may give rise to this trouble. The treatment of hyperidrosis consists of atropia and galvanism.

As to the causes of displaced liver little is as yet known. The condition may be due to an abnormal length of the ligamentum suspensorium, to traumatism, to dragging down by peritoneal adhesions, or, as in a case reported by Dr. Garnett (*Am. Journal of Medical Sciences*, 1881), to violent muscular exertions. It is of very uncommon occurrence, and has as yet been observed only in women.

Anhidrosis has been observed in gunshot wounds of the neck, and it may occur as a symptom in diabetes and in cancer; in the latter it is due probably to imperceptible enlargement of cervical lymph glands. It may also be caused by paralysis of the corresponding sweat centers, which, according to Adam Kilwicz are situated in the medulla. Hyperidrosis may be caused unilaterally by stimulation of the proper secretory fibers. If due to paralysis of the sympathetic, pallor of the outer ear and the face on same side occur, as shown by Claude Bernard. Symptoms referable to the eye are also seen, such as sinking of the eyeball, flattening of the cornea, and occasionally unilateral atrophy of the face follows.

BERLIN, GERMANY

PROFESSOR JOSEPH HYRTL, the eminent anatomist, celebrated his eightieth birthday on December 7th. Among other congratulatory messages sent to him was one from the Lower Austrian Landtag. It is interesting to note that among his countrymen Hyrtl's popularity as a public benefactor is equal to his fame as an anatomist. Among other charities he is the founder of two orphanages at Modling, near Vienna.

## Reviews and Bibliography.

**A Text-Book of Practical Therapeutics**, with especial Reference to the Application of Remedial Measures to Disease and their Employment on a Bacterial Basis. By HOBART EMORY HARE, M. D., B. Sc., of the University of Pennsylvania. 632 pp. Philadelphia: Lea Brothers & Co. 1890.

The title of this work is a fair indication of the aim of the author in its production. It is essentially a work on practical therapeutics. The author is convinced that most of the works before the profession assume too much knowledge of medicine on the part of the student, and that the student is likely either to become a blind routinist or to get discouraged at the perplexing mixture of science and empiricism. For this reason he has added a part in which diseases are given along with the appropriate remedies, as was in a large measure done by Steele in his classic volumes. Brought down to the latest date as it is, and prepared with commendable discrimination, "Practical Therapeutics" must make a place for itself, notwithstanding the numerous excellent works in the same department of science.

D. T. S.

**A Manual of the Practice of Medicine**. By FREDERICK TAYLOR, M. D., F. R. C. P., London. With illustrations. 877 pages. Philadelphia: P. Blakiston Son & Co. 1890.

The aim of the author in this handy volume has been to give a complete account of the present state of medical practice. The main attention has been given to the description of symptoms, to diagnosis, prognosis, and treatment, these being regarded as the divisions that most answer to the idea of practice. Etiology and pathology have received less attention, though they have not been entirely neglected.

The book is just such an one as may lead the student to regard the mastery of medical science as an easy task, the subtle and obscure points having been placed in the background. It seems to us that in this the author has acted well. It is not easy for the physician who has spent years of close study and deep thought in mastering, to a large extent, the difficulties of medical study, to realize what a perplexing task is placed before the student, who is ex-

pected in two or three seasons to get, somehow, through all this knowledge.

We know of no work that, while being satisfactorily full, addresses itself more readily to the understanding than does this. When this is mastered the student will feel encouraged for greater tasks, instead of being disheartened and having his ardor disappointed at the very threshold of his studies.

D. T. S.

**Text-Book of Materia Medica for Nurses**.

Compiled by LAVINIA L. DOCK, graduate of Bellevue Training School for Nurses, Superintendent of Grace Memorial Home. 201 pp. G. P. Putnam's Sons, New York and London. The Knickerbocker Press, 1890.

The authoress gives as her reason for sending forth this little book, the conviction that nurses should study only the character and properties of medicines without reference to their application to the treatment of disease. The aim has been to collect from all available sources the scattered points in materia medica which concern a nurse, and to give them simply and directly. And it is not too much to say that she has succeeded admirably.

If we were disposed to find fault, it would be in regard to the poisonous action of medicaments and the corresponding antidotal treatment. In this, however, she has long-standing and widespread example to sustain her.

In the presence of an average case of actual poisoning one must smile to read the careful distinction made in regard to the appropriate antidote, usually chemical, for each particular form of poisoning. Not that many poisons have not their chemical antidotes that would do well if the poison were held in one hand and the antidote in the other, to be taken immediately after, but the moment that must be given by even the chemist to composing himself and thinking of the appropriate antidote might suffice to rescue the patient by the use of some simple but generally applicable means to be found in nearly all cases at hand.

As regards literary style and readableness, the work is in a high degree attractive, and the authoress may be congratulated on having made a very helpful contribution to the literature appropriate for the nurses' library.

D. T. S.



**Essentials of Minor Surgery and Bandaging**, with an Appendix on Venereal Diseases, arranged in the form of questions and answers. Prepared especially for students of medicine by EDWARD MARTIN, A. M., M. D. Illustrated. 166 pp. (Saunders' Question-Compends, No. 12.) Philadelphia: W. B. Saunders. 1890.

This is a continuation of the excellent series of Saunders' Question-Compends, and is characterized by the same excellence of literary press work that has distinguished previous numbers.

We have no doubt the author will be justified in claiming that the principles here laid down will enable the overworked student to formulate his knowledge upon subjects usually treated as of minor importance in the surgical course, but in reality chiefly essential in the early years of his professional life.

D. T. S.

**A Text-Book of Comparative Physiology**, for Students and Practitioners of Comparative (Veterinary) Medicine. By WESLEY MILLS, M. A., M. D., D. V. S., Professor of Physiology in McGill University, Montreal. 636 pp. Price, \$3. New York: D. Appleton & Co. 1890.

Until within the past year the student of comparative medicine in English-speaking countries has been without a single text-book written in his own language to meet his special wants and possibilities. The works of various authors on comparative physiology pursued the subject no further than necessary to illustrate human physiology. Recently two works have appeared, one by Professor Smith, and the Text-book of Animal Physiology by the author of this volume. Believing that a somewhat smaller work, embodying the same plans but with greater specialization for the domestic animals, would commend itself to students and practitioners of medicine, the author has produced the present volume. He rightly concludes that in these days of vast stock interests all that relates to reproduction and breeding is of so much practical importance that the fullest treatment of the subject is justifiable.

The treatment of the subject is gauged to the capabilities of those who have not gone far beyond the attainments that may be expected of the intelligent laity. At the same time,

while unnecessary technicalities are avoided, the author enters profoundly into the philosophy of the various problems arising, and approves himself an original and deep thinker. To members of the medical profession, as well as to veterinarians, this work must prove highly profitable. The author is a thorough evolutionist, and on every page shows his enthusiastic devotion to his chosen line of study. With a superb work to offer, with the field almost to himself, and a wide-spread need to supply, "Comparative Physiology" is secure of a very large success.

D. T. S.

**Essentials of Practice of Medicine**, arranged in the form of Questions and Answers. Prepared especially for Students of Medicine. By HENRY MORRIS, M. D. With a very complete Appendix on the Examination of Urine, by Lawrence Wolff, M. D. 367+66 pp. Philadelphia: W. B. Saunders. 1860. (Saunders' Question Compends, Nos. 8 and 9.)

Like the rest of Saunders' Question Compends, this volume is intended simply as an aid to the advanced student of medicine, who is preparing for his degree, and is not intended to replace the larger text-books in general use. The teaching is sound, the presentation graphic, matter as full as might be desired, and the style attractive. It will be found helpful to many who long since have obtained their degree.

## Correspondence.

### LETTER FROM GERMANY.

The atmosphere of Germany, in fact of the whole world, is so rife with the fumes of Prof. Koch and his late discovery that it is naturally impossible to begin without beginning with Prof. Koch. From all accounts that good man and his assistants are undergoing a sort of siege in Berlin. Loads of letters and multitudes of people are constantly pouring in the front door, and the poor, hard-worked men are compelled to sneak out the back way when they desire to get a breath of fresh air and a little exercise for the body.

Although the amount of the remedy now to be had is very small, nevertheless most of the university clinics throughout Germany have

received enough of it to institute observations as to the method of its working. Bonn is among this number. On the 21st of November injections were begun in the medical clinics in cases of tuberculosis of the lungs. On the following day injections were begun in the skin and surgical clinics in cases of lupus, bone and glandular tuberculosis. I have had the good fortune to observe these patients in the various stages of reaction and as far as the treatment has yet progressed. I trust I can say without unpardonable presumption that my eyes have confirmed the objective reaction appearances so well described by Prof. Koch.

I will begin, as Prof. Koch recommends, with a case of lupus, or, still better, two cases: Two young women in Prof. Dutrelepon's clinic presented typical cases of lupus of the face. The nose in each case was the chief seat of the disease, one case presenting in addition several nodules on the upper lip and on the cheek close to the angle of the mouth. In a third bed was a patient who had had a similar lupus, but scarification was complete and the patient apparently well. On the morning of the 21st of November each of these patients received an injection of five milligrams in the skin of the back between and slightly below the shoulder blades. At six o'clock in the evening of the same day there occurred in the first two cases a strong rise of temperature to more than 40° C., preceded by a shaking chill, a quickening of the pulse to between 130 and 140 to the minute, vomiting and a general feeling of weakness, with violent headache, and in one case delirium. At the same time the nose and close surrounding neighborhood and upper lip became very much swollen and red. On the next day the general symptoms were somewhat abated, fever to 39° C., however, and the delirium of the one patient continuing. Already crusts had begun to form on the ulcerated surfaces. On the third day the delirium had disappeared and the general symptoms continued to decrease. The ulcerated surfaces were completely covered with dry crusts. Nine days after the first injection the crusts remained entirely dry, temperature normal, but the patients feeling weak and incapable still of much physical exertion.

Fifteen days after injection, and having received only the one injection of five milligrams, one of these patients presented still a patch of dry crust slightly larger than a ten-cent piece, which on being picked away showed some pus behind. The other patient appears *cured*. The former seat of ulceration is completely covered by a smooth scar, and only a slight redness and a few dry scales remain, together with the slight disfigurement which had previously occurred from the progress of the disease, to say that this had been a case of that heretofore terrible disease, lupus.

The third case of apparently cured lupus responded with only a slight temperature reaction. The scars on the nose remained unchanged; but higher up, on a level with the eye, a part that had previously shown no signs of disease, a slight reddening occurred and two or three small elevations appeared. A like appearance was seen in the scar tissue remaining from the excision of an old tuberculous gland in the neck.

In Prof. Treudelenburg's clinic there are a number of cases of bone tuberculosis of ankle, knee, vertebræ, skull; two cases of tuberculosis of testis; one of tuberculous ulcers of the stump of the left leg, following a former carious process of the bone, for which the amputation had been done. A few weeks ago the right foot was also amputated for a similar reason. The healing process proceeded well, and good scars are formed. This patient after injection responded with a rise of temperature, etc., and at the same time showed a marked local reaction in the left stump at the seat of ulceration, the good scar tissue of the right stump remaining unchanged.

In the case of caries of the skull (frontal and parietal bones) there was a doubt as to the nature of the disease, whether syphilis or tuberculosis. An experimental injection was made (five milligrams), reaction followed, and the diagnosis of tuberculosis was determined. In this case the injections have been repeated every two or three days with a marked improvement in the local process and a general improvement in appearance with slight additional weight.

Another of these cases, one of tumor albus,



in addition to the general reaction and a slight local reaction, had a cough produced accompanied by a copious expectoration. Examination of this sputum showed the abundant presence of bacilli. Previous to the injection no sputum had been thrown out, and hence the examination had not previously been made.

Without describing further, separately, each of these cases of bone, testicular, and glandular tuberculosis, it can be said generally that nearly all these are some exceptions in which the diagnosis of tuberculosis could be safely made following the injection have had a general reaction and a more or less marked local reaction. Three cases of caries of the vertebræ have shown, in addition to the general reaction, a very marked local reaction in the way of acute pain at the seat of disease, where before none or almost none had been felt.

In these cases of surgical tuberculosis the first injection has usually been for an adult five milligrams. The first reaction having subsided, usually in two or three days, the same dose is repeated until no marked reaction follows, when the dose is increased by five milligrams, and so on.

I have not had the opportunity of following the cases of lung tuberculosis, but I am told the children and foster cases have shown already improvement, both as regards general feeling and a slight increase of weight. The old and bad cases, with cavities and complications, have apparently not been benefited.

In the *Deutsche Medicinische Wochenschrift* of November 29th are reported a number of cases of laryngeal and glandular tuberculosis, and phthisis from Dr. Fraunke, Dr. Lavy, and Dr. Kallay, in Berlin, and in the *Berliner Medicinische Woche*—held up November 27th observations of a number of cases of laryngeal tuberculosis are reported. All of these reports, which are too long to be even summarized here, after describing very minutely the general effect of the injections, the local reaction and appearance, even end by pronouncing a marked improvement in most cases, and some improvement in all, except those of very far advanced phthisis; and so the matter stands to-day.

Prof. Koch's experiment with the guinea pig have shown that not only can the tubercu-

lous process be arrested in that animal, but that the inoculation renders the guinea pig insusceptible to further tuberculous infection. Whether this insusceptibility will remain during the life of the guinea-pig remains to be seen. And whether man is rendered likewise insusceptible to further infection, and whether the tuberculous process is really arrested or not (it certainly is *affected*), remains also to be seen. At the same time the spirit of skepticism seems to be altogether lacking in the profession of Germany. The government proposes to build Prof. Koch a hospital and laboratories for the express purpose of enabling him to further carry out his investigations, as stated in a speech of Minister of Culture Von Goszler on November 29th. It is further to be inferred from his speech that the nature and method of preparation of the Koch fluid will probably become a State secret, and so for the present the fluid will only be made here in Germany under the supervision of Prof. Koch. This is deemed advisable on account of the extreme difficulty of the preparation of the fluid, which Minister Von Goszler states, speaking from Koch, requires six weeks. The further plan is, when Prof. Koch shall be ready to give some time to instruction, to invite the different nations of the world to send suitable representatives to Berlin, and to these Prof. Koch will impart the method of preparation of this most powerfully acting and apparently most beneficent medicine.

As I have said, the medicine is now being employed in all or nearly all the university towns of Germany, and before many months are past a great number of cases can be reported, and so a more definite knowledge of the value and extent of the power of the medicine will be reached. In the mean time the whole civilized world holds its breath, so to speak, to await the issue. As a German paper states, there is probably no man in the world other than Koch, who, withholding the value of a medicine, could at the same time so demand it in the presence of the whole world. To be sure, the hope is in some sense the father to the belief. At the same time so many years of this great man's life have been spent in the study of the life history of the bacillus tuberculosis, and the



manner of its growth in the animal body, with the express purpose of discovering something with power to prevent such growth, that the world is naturally prepared to listen with credence when he does at last speak.

JAMES B. BULLITT.

BONN, December 6, 1890.

## Abstracts and Selections.

**A CASE OF ILEO-CECAL INTUSSUSCEPTION IN AN ADULT; ABDOMINAL SECTION; RECOVERY; REMARKS.**—Intussusception is such a rare disease in the adult that the record of a case successfully treated by any method would be of interest, and much more so is the account of a case in which recovery followed reduction of the intussusception after abdominal section. We have in a previous number of the *Lancet* considered the question of treatment of this disease, and can not do more than refer to the method employed by those in charge of this patient. From statistics collected at that time, the operation of laparotomy had been performed sixty three times. In thirty four, when the invagination was reduced (twenty-three of which were children), five recovered; and out of eleven adults, seven recovered. In the children the ages varied from six months to four years; the duration of symptoms before operation from seventeen hours to a month. Of the cases where success followed in the adult, the ages varied from twenty to fifty, and the duration of the symptoms from some hours to several months. To these we added other successful cases: one by Mr. Carver, a boy aged two years and nine months, in whom abdominal section was successful seven weeks after the commencement of symptoms; and a second by Mr. Workman, that of a child aged eight months and a half. Operation was performed on the failure of insufflation combined with massage; the symptoms had existed for only twenty-four hours.

Since our previous publications on this subject few cases have been recorded, but Mr. Annandale operated successfully on a child three years of age for acute obstruction, the symptoms of which had commenced two days before. Attempts to afford relief before operation by opium given in small doses, the administration of enemata, and the use of rectal bougies, were unsuccessful. Still more recently, Dr. F. Kammerer has operated on a child of six months for acute obstruction, and obtained success. There have doubtless been many instances of recovery after operation, the details of which have not yet been published;

for instance, at one hospital, the Royal Free, there have been two successful operations on children during the past two years for intussusception, and although one child died some weeks later apparently from pneumonia, the fatal disease bore no relationship to the operation. Though the question as to the advisability of performing abdominal section in these cases has been to a certain extent unsettled, there is an increasingly strong feeling in favor of it, should the intussusception not be relieved in the early stages by the methods, injection, insufflation, etc., usually employed. In commenting on his case, Mr. Annandale laid great stress on the importance of early operation.

The case was that of a married woman aged twenty-six, and the symptoms came on suddenly on the morning of July 8, 1890. At about 6 A. M. she felt a sharp pain in the lower part of the abdomen, which lasted from five to ten minutes, and then ceased. In about a quarter of an hour the pain returned, and after that she had two attacks every hour. Each pain was of the same character, was felt at the same spot, and lasted the same time, and with most attacks she vomited a greenish material. She compared the pain to being tied in a knot. During the day the bowels were opened freely. In the evening she was admitted into a medical ward of King's College Hospital under the care of Dr. Dalton. She was then rather collapsed, but soon rallied; and when examined a slightly tender, sausage-like mass was felt in the right iliac fossa. When seen during the visit on the afternoon of the 9th she was better, the attacks of pain and vomiting having occurred less frequently, and having been less severe. This was due to the opium which she had been given. She had, however, passed two large pultaceous motions, which consisted chiefly of blood, partly darkened and partly bright red, as if recent. When not in pain she looked quite well; there was no fever, and the urine was normal in quantity and quality. The tumor was now very evident. It was cylindrical, about as thick as a German sausage, and about three inches long. It lay in the right iliac fossa, with its long axis directed upward and to the right, but it was freely movable, and could be shifted into the right lumbar region and also into the umbilical region. It was slightly tender; but, except when the tumor was touched, palpation was painless over every part of the abdomen, and there was no abnormal distension. During the night the attacks of pain continued to be infrequent, but in the morning the tumor seemed larger, and as the symptoms pointed clearly to intussusception Mr. Cheyne was asked to see the case. He concurred in the diagnosis, and it was agreed that abdominal

section should be done. The patient having been anesthetized, and the front of the abdomen thoroughly purified, an incision about three inches long was made in the middle line from a little below the umbilicus downward. The peritoneal cavity being opened, the tumor (which was very freely movable) was found to be an ileo-cecal invagination, and a cautious attempt was made to pull out the invaginated portion. As this was not successful, the incision was enlarged sufficiently to enable the hand to grasp the tumor, and the invagination was then squeezed out without any special difficulty. The wall of the affected part of the bowel, especially that of the cecum, was much thickened by inflammatory exudation; but though the peritoneal surface was dull, there was very little lymph on it. The peritoneal cavity was not washed out. The wound in the peritoneum was closed by a continuous catgut suture, and the muscles and skin brought together by interrupted sutures, and the usual antiseptic dressings were applied. The patient passed a good night, and from the time of the operation she had no further pain or vomiting. There was no fever. She was kept on milk diet for two or three days, and was given one grain of opium every four hours. The opium was then stopped and the diet gradually increased. The bowels were moved freely after an enema on July 18th, and on that day the wound was dressed for the first time and found to be healed. The patient was discharged on August 1st quite well.

Remarks by Dr. Dalton: As regards the etiology, the patient was inclined to attribute her illness to great nervous excitement and depression produced by a domestic quarrel during the night; and she said that she felt an internal trembling just before the pain occurred. She had, however, recently eaten some stale stew. This may have been indigestible, but it still remains probable that the emotion may have affected the abdominal sympathetics in such a way as to cause the irregular intestinal contractions which produce intussusception. The frequency of intussusception in children (who are obviously emotional subjects) and its rarity in adults (when not due to polyp) would tend to strengthen this supposition. The extreme mobility of the tumor was very remarkable, and it was found at the operation to depend on the presence of a long meso-ecum. The tumor was usually felt in the right iliac fossa, but while the anesthetic was being administered it disappeared, and was only found (after search) under the lower margin of the liver. Another point worth noting is that, after the wound was sewn up, the tumor could still be felt through the abdominal wall almost as dis-

tinctly as before the operation. This was due to the thickening of the wall of the gut by congestion and exudation, but had we not known that reduction had been effected, we might have supposed that the invagination was still present. When the wound was dressed the tumor had disappeared. — *Dr. Norman Dalton, London Lancet.*

**DEMONSTRATION AT PADDINGTON GREEN CHILDREN'S HOSPITAL**—A demonstration of Koch's treatment in cases of children's diseases was given by Mr. Watson Cheyne, at Paddington Green Children's Hospital, on Tuesday morning last. Two cases (Nos. 1 and 2 in the following list) had been injected at 10 P. M. of the previous day that the effects might be shown to the audience assembled at the demonstration. Mr. Cheyne made some introductory remarks, similar to those recorded at page 1321 of the *British Medical Journal* of December 6th. It will be observed that all the cases except two, which were injected for diagnostic purposes, showed the subsequent characteristic pyrexial reaction. Most of the patients in whom the reaction ensued coughed much in the afternoon, even before their temperature rose, and they were all drowsy. Some had shivering, others vomited, a few of the elder ones had headache. The affected parts—joints, sinuses, etc.—swelled and were red, and where they were superficial they discharged.

**CASE 1. Tubercular Peritonitis: Ulcer on Buttock.** W. P., aged eleven and a half years. Admitted in May, 1890; had been ailing generally and wasting for three months, and had abdominal pain with tenderness and distension for three days. Some members of his family had died of phthisis. On admission he had symptoms of subacute tubercular peritonitis. The abdomen was opened by Mr. Stanley Boyd, who found the peritoneum studded with milary tubercles, and drew off two pints of ascitic fluid. Irrigation with warm water was employed, and iodoform emulsion (eight per cent) injected. The wound had healed on June 13th, and the child was sent to the Wembley Convalescent Home. He was readmitted on October 17th with the wound partially broken down and occupied by caseating tubercular tissue which was scraped out. The wound had healed on November 11th, and the child had since gained flesh and strength. On December 8th no ascites remained, but there were hard masses near the cicatrix in the abdominal wall, and, on deep pressure, others were found beneath the umbilicus. There was a small scab, as large as a split pea, on the center of the cicatrix, and an ulcer as large as a shilling on the right buttock. At 10 P. M.



three milligrams of Koch's fluid were injected. The temperature rose between 4 and 6 A.M. on December 9th, and at 7 A.M. it was 104° F. The child vomited frequently as the temperature rose, and was chilly. At 10 A.M. the abdomen was slightly tender, the scab on the cicatrix was surrounded by a red zone of skin, while the ulcer on the buttock was unchanged. The temperature remained at 104° until 7 P.M., when it sank quickly to normal, and remained below 99° the following day.

CASE 2. *Epiphysitis (left Ankle)*. J. F., aged fifteen months, was admitted December 1st with inflammation above the left ankle, with no history of injury or congenital syphilis. Much of the swelling had subsided under rest, but the malleoli were still thickened. Mr. Cheyne thought the case was probably one of congenital syphilis. December 8th, 10 P.M., one and a half milligram was injected as a test of tuberculosis; no reaction ensued.

CASE 3. *Strumous Elbow (right); Peripheral Corneal Ulcer; Nodule on Left Knee; Enlarged Cervical Glands*. F. C., aged nineteen months, was admitted on December 5th with inflammation of the right elbow of four weeks' duration. A sister, aged eighteen, had recently died of phthisis. On December 9th, at 10 A.M., one and a half milligram was injected. The temperature rose at 2 P.M., and at 6 P.M. it was 104.4° F. After 11 P.M. it gradually fell, and was 99° at 3 P.M. on December 10th.

CASE 4. *Caries of Right Radius; Enlarged Cervical Glands*. E. P., aged three, admitted December 3d. Had had swelling above the wrist eleven months, after injury a month previously. Some dead bone had been removed at St. Mary's Hospital about six months ago, since which time the case had been under the care of Mr. Eastes, and the sinus had discharged ever since. On December 9th, at 10:15 A.M., two milligrams were injected. The temperature began to rise at 4 P.M., and at 10 P.M. it was 104.9° F. It remained high until December 10th at 4 P.M., when it fell and became normal soon after 9 P.M. During the time of high temperature the pulse varied from 130 to 156, and the respirations from 36 to 60. The child vomited three times.

CASE 5. *Scar over Fibula; Sinus in Lumbar Region; Mass of Enlarged Glands in Right Iliac Fossa*. E. C., aged five, was admitted on December 8th. Six months earlier she had had acute necrosis of the left fibula, and had had dead bone removed. An abscess in the lumbar region had been discharging for two or three weeks. On December 9th, 10:15 A.M., two milligrams were injected. The temperature commenced to rise at 8 P.M.; at midnight it was 102.8° F., and began to fall at

once, until at 6 A.M. on December 10th it was 99°. The respirations at midnight were 65, and then decreased in the following six hours to 30.

CASE 6. *Hip Disease*. C. N., aged five and a half, was admitted in February, 1890, with disease of fifteen months' duration. Arthrectomy was then done by Mr. Cheyne, who found pus in the joint, and much synovial thickening; a sequestrum was removed from the anterior part of the neck of the femur. A discharging sinus had since remained persistent. He had no other signs of tubercular disease. On December 9th, 10:20 A.M., three milligrams were injected. The temperature began to rise at 4 P.M., and at 6 P.M. was 104°; it remained high until 7 A.M. on December 10th, then began to fall slowly, and at 9 P.M. was 100.2° F. This boy vomited once, and his pulse varied from 128 to 140 during the time of high temperature.

CASE 7. *Tubercular Glands and Sinuses in the Groins and Abdomen*. A. A., aged seven, admitted in July, had been attending the hospital for two years and a half in the same condition as at present; the sinuses had been scraped out several times, and much tubercular tissue had been removed. On December 9th, at 10:20 A.M., three milligrams were injected. The temperature began to rise at 2 P.M.; at 5 P.M. it was 103.6° F., and at 8 P.M. 104.6° F.; it remained high until 4 A.M. on December 10th, and at 3 P.M. had fallen to 99.6° F.

CASE 8. *Enlarged Cervical Gland (behind Mastoid); Corneal Nebula*. L. B., aged twelve and a half years, was admitted December 6th. The glands had been enlarged one year; the corneal opacity had existed four months. On December 9th, at 10:30 A.M., five milligrams were injected. The temperature rose at 4 P.M.; at 7 P.M. it was 103° F., and remained high until December 10th, at 2 A.M., when it began to fall, and at 8 A.M. it was 99.2° F.

CASE 9. *Strumous Dactylitis (left); Scar above Internal Condyle of Right Humerus*. P. S., aged five years, was admitted December 9th. Had attended the hospital since April, 1888. The left middle and ring fingers were affected, and he had been operated upon three or four times with temporary relief, but the swelling had always returned and the scars broken down. Now the fingers were much enlarged. On December 9th, at 10:30 A.M., two milligrams were injected. The temperature began to rise at 2 P.M., and at 7 P.M. was 104.6° F. After midnight it gradually fell, until at 6 A.M., on December 10th, it was 101° F., near which point it remained until 8 P.M. At the height of the pyrexia the pulse was 160, the respirations being 50.



**CASE 10. Adenoid Vegetations (Postnasal), Enlarged Tonsils and Cervical Glands.** H. R., aged four and a half years, was admitted in November. Had always had difficulty in breathing at night. The nasopharynx was stuffed with adenoids. On December 9th, at 10:35 A.M., two milligrams were injected. No reaction ensued.

**CASE 11. Phthisis.** E. R., aged nine and a half years, was admitted December 5th, under the care of Dr. Herringham. She had had wasting and cough for twenty months. There were signs of consolidation at the left apex, and of catarrh at the right apex. On December 9th, 10:40 A.M., two milligrams were injected. The temperature remained at about normal until 8 P.M., when it suddenly rose, and at 10 P.M. stood at 103° F. After midnight it slowly fell, and at 6 A.M. on December 10th was 99.8° F. At 6 P.M. it was 97.6° F. The pulse rose to 130, and the respirations, which were 36 just after the injection, varied from 46 to 64 during pyrexial period.

**CASE 12. Phthisis.** E. M., aged eight and a half years, admitted December 8th, under the care of Dr. Sidney Phillips. She had had symptoms for six months and now had signs of consolidation under the second right intercostal space, with dullness and fine râles at the right base posteriorly. On December 9th, at 10:20 A.M., one milligram was injected. The temperature began to rise at 4 P.M. At 6 P.M. it was 101° F., and at 10 P.M. was 101.9° F. On December 10th, at 8 A.M., it was 100° F., and gradually rose until, at 6 P.M., it was 102.4° F.

We are informed that no other formal demonstrations will be given at this hospital. The wards, however, are open daily from 3 to 5 P.M., that medical men may observe the cases. The injections will be repeated by Mr. Cheyne probably about every other day. We are indebted to the house-surgeon, Mr. H. L. Lack, for particulars respecting the progress of the cases since the demonstrations.—*British Medical Journal*.

**THE CONSTANT GALVANIC CURRENT IN GYNECOLOGY.**—Dr. Apostoli delivered an address at the Berlin Congress, of which the following are the general conclusions and summary:

1. The constant galvanic current is principally indicated in gynecology, in endometritis, and in fibroma; the sovereign treatment in painful and circulatory troubles (amenorrhea, dysmenorrhea, and metrorrhagia), it is a powerful remedy for arresting the evolution of non-malignant neoplasms, and aids the reabsorption of extra-uterine exudations. It exercises a very

salutary resolute action in many peri-uterine inflammations, and in certain catarrhal ovaro-salpingitis, but it is inefficacious, and even hurtful in large doses, particularly if the intra-uterine pole is without action against the suppurating inflammation of the annexes.

Its variable intolerance, which increases with the inflammatory condition of the annexes, should serve as a precious means of diagnosis, to determine the existence and the nature of peri-uterine liquid collections (hematic or suppurating) unsuspected or simply doubtful, and should serve to hasten in those cases delayed or refused surgical intervention.

2. The effects of the constant galvanic current are polar and and interpoler. The interpoler action, trophic and dynamic, which increases as the square of the intensity furnished is added to the polar action; the latter is utilized first by the different action of each pole, which Apostoli has made known, then the calorific action developed by the passage of the current (to augment the intestinal circulation), and finally the antiseptic action of the positive pole, which Apostoli and Laquerriere have recently given experimental demonstration.

3. The elevated galvanic applications employed in various ways, above fifty milliamperes, according to the tolerance of the patients, and other clinical indications form the fundamental basis of the method of Apostoli and find their justification:

(a) First in the utilization of the circulatory drainage, direct consequence of the calorific action due to the resistance of the passage of the current, and proportionate to the square of the intensity.

(b) In the antiseptic action of microbicide, which increases with the intensity produced.

(c) In the rapidity and efficacy of the effects produced, which are proportional to the square of the electrical energy, after an analogous formula, to that of the measurement of the energy of other natural forces:  $Q = \frac{1}{2} m b^2$ .

(d) In the generalization, more easy of method in rebellious cases (hard fibromas, and sub-peritoneal, endometritis, etc.), and in young women.

(e) In the éloignement of the relapses, which, other things being equal, will be that much less to be passed, the more intense has been the application.

4. If the vaginal application of the galvanic current (which is the method created by M. Chéron for fibromas only, and applied since by A. Martin, Bracht, Meniere, Onimus, Carpenter, Mundé, etc.) produces results, they are very inferior to those of the intra-uterine application, which should remain the method of choice.

(a) Because it utilizes above all the maximum of the current produced, and of its energy.

(b) Because it utilizes the antiseptic action of the positive pole which, is altogether local, and which is done away with in the inter-polar circuit and at the level of the negative pole.

(c) Because it often adds a diurative and caustic action to the intra-uterine application, thus treating at the same time either a simple endometritis, or the endometritis which so often complicates fibroma and the peri-uterine inflammations, insuring in this way a more rapid cure, more complete, and more permanent.

(d) Because it furnishes, to a better extent than vaginal applications, the relief of pain, and renders more tolerable the employment of high doses, and finally it assures a greater efficacy in rendering possible an increase of the intensity applied and the sanguine irrigation which accompanies it.

5. Vaginal punctures made at a depth of a few millimeters (from two to five) by means of a filiform trocar of gold, insulated in all its extent, excepting at the point, forms the complement often very salutary of intra-uterine therapeutics created by Apostoli, in better localizing the galvanic action and in rendering more efficacious, in certain cases, the application of small and moderate doses.

6. The innocuity of his intra-uterine therapeutics affirms for itself: First, as compared with the bloody method of intra-uterine curetage, and particularly as regards the statistics furnished by the entire world as compared with his own. From July, 1882, to July, 1890, he has made 11,499 galvanic applications, distributed as follows: 8,178 intra-uterine positive galvanic caustics; 2,486 intra-uterine negative galvanic caustics; 222 vaginal galvanic punctures positive; 614 vaginal galvanic punctures negative.

He has treated 912 patients, comprising 531 fibromas, 133 simple endometritis, and 248 cases of endometritis complicated by peri-uterine inflammations divided into:

Clinic: 313 fibromas; 70 simple endometritis; 163 cases of endometritis complicated by peri-uterine inflammations.

Private: 218 fibromas; 63 simple endometritis; 85 complicated endometritis.

He has had three deaths, which may be attributed to operative failure (two galvanic punctures, one for a subperitoneal fibroid, the other for an ovaro-salpingitis; one galvanic caustic for a cyst of the ovary mistaken for a fibroma).

He has observed thirty cases of pregnancy following after intra-uterine galvanic applications.—*Times and Register*.

STRYCHNINE AS A PREVENTIVE OF TETANUS. The *Bulletin Medical*, September 21, 1890, says that Peyraud, continuing the application of his theory *similia similibus*, not for the cure but for the prevention of infectious diseases, has just communicated to the Bordeaux Medical and Surgical Society some experiments relative to the power of strychnine to prevent tetanus. According to Peyraud, as strychnine acts upon the nervous system in such a manner as to provoke a state altogether similar to that produced by the virus of tetanus, it should put the nerve cells in such a condition that they can no longer react to infection by tetanus. This is his theory.

On April 23, 1889, he made subcutaneous injections of a solution of strychnine, containing one sixtieth of a grain to the fluid dram, in the case of thirteen rabbits of various weights and ages, but none older than five or six months, the youngest being four months old. A half (Pravaz) syringe-ful was injected under the skin of the flank. The following day an exactly similar dose was injected. On the 25th he increased the dose a little (by one division of the syringe-piston). Ten of the animals were seized with convulsions, and three died; three were unaffected. The next day the first dose was resumed. Only two of the animals had convulsions, and on the 27th three. Tolerance to strychnine injected under the skin does not, therefore, seem to have been established. On the evening of the 27th he made his inoculations with a little rabbit made tetanic with the powder of hay. This animal had pleurosthotonos so pronounced that it was literally bent double on the inoculated side. He first made six inoculations under the skin of the head, always using a small particle of tissue taken from around the tetanus-bearing wound. He says: "I even scraped with my scalpel the serum and the pus from the wound, and dried this scalpel upon the lips of the inoculation wound, that the inoculation might be quite certain and complete." The small wound was sewed up hermetically. At this time the animal with tetanus died. It was replaced by another in the same condition, but a little less moribund than the preceding, and Peyraud then finished the inoculation of the four remaining dogs poisoned with strychnine, and of two unprotected animals, as a control experiment. Again, a small piece from the wound and the fluids from the rabbit which died of tetanus were used to inoculate two other unprotected animals. Thus fourteen rabbits were inoculated; ten prepared by strychnine, four unprepared, as control experiments. On April 28th Peyraud took four of the rabbits injected with strychnine and com-



pleted their preparation by a fresh dose of strychnine a little less than that given on the 27th. One only had some very slight convulsive movements. On May 1st one of these animals was seized with tetanus and died in opisthotonos the following night. Two more died in the next two days, but the fourth, though it showed embrothtonos and refrained from food for two days, did not die. The protected animals, which did not receive any supplemental injection of strychnine after inoculation, remained well except one, which had a slight contracture of the right hind leg. All the animals used for control experiments died of tetanus between the second and fourth days. Peyraud says he has obtained the same results in another series of cases, and he believes his results demonstrate that strychnine has power to prevent tetanus.—*Medical and Surgical Reporter*.

**THE TREATMENT OF SUPPURATING CAVITIES WITH RIGID WALLS**—Kuester, Berlin (*Centralblatt f. Chirurgie*, 1890, No. 29), calls attention to the error committed by surgeons in the treatment of abscess cavities with rigid walls, in delaying opening of the same, and in frequent irrigations of the same after opening. He insists upon the following:

1. The earliest possible incision.
2. The incision must be made at the most dependent point.
3. In case of large cavities, a counter-opening is to be avoided as far as possible. He dwells particularly upon the subject of empyema, and describes his method of dealing surgically with this condition as follows:

After exploratory puncture, an incision is made at the lowest point of the dull percussion note, usually in the fourth or fifth intercostal space, giving exit to the accumulated pus. A probe is then passed through the wound to the posterior boundaries of the cavity and pressed firmly between the ribs posteriorly until its point is felt in an intercostal space, at which point a portion of the superadjacent rib is resected. The opening thus made must be sufficiently large to enable the surgeon to obtain a view of the interior of the cavity. Should the lowermost portion of the cavity not have been reached by the first resection, a portion is removed from the subadjacent rib, until the junction of the diaphragm and inferior reflection of the pleura is reached. The cavity is then, under slight pressure, irrigated with a warm solution of salicylic acid, and the walls of the cavity carefully sponged of all traces of fibrinous matter, by means of a sponge in a bundle, and through and through drainage established by drawing a tube from one opening to the other

and securing it. The wounds upon the anterior and posterior chest wall are covered by iodoform gauze, upon which is laid a cushion of moss, which may remain undisturbed for upward of eight days. If, in case of a recent empyema, the lung begins to expand in the course of ten days, the through and through drain is substituted by a short tube through the posterior wound. The author anticipates that complete cure will follow this treatment, in recent cases, in from three to six weeks.

The author further treats of the treatment of cavities, which, unlike the pleural, are surrounded upon all sides by rigid and unyielding walls; as, for instance, empyema of the antrum of Highmore. Of the three methods usually employed for gaining access to diseased conditions of the antrum, Kuester chooses that which perforates its wall from the face, for the reason that the indications considered by him most important of fulfillment can but be followed out by this route (thorough cleansing of the walls, and the identification by the fingers of the different portions of the cavity). This is done subperiosteally, and the cavity is irrigated but once with an antiseptic fluid, and then tamponned with iodoform gauze. As soon as the suppuration becomes but slight (which sometimes occurs in a very short time), the iodoform gauze is removed and a small drainage tube substituted therefor. In the empyema of the frontal sinuses, Kuester drains through the nose. Diseased conditions of the mastoid cells and of the cavity of the tympanum belong to this division of the subject; their treatment, however, is somewhat complicated, as compared to the others, the preservation of the hearing, as well as the prevention of brain complications, entering into the question. The same principles, namely, early and free opening, however, should be followed.—*Fowler, Brooklyn Medical Journal*.

**TREATMENT OF ECZEMA IN CHILDREN.**—The treatment of eczema is not so definitely settled as to be one for all cases. Every case has its own peculiarities and demands special attention. Remedies which may be valuable in one may be found worthless in another. The treatment of the disease, when occurring during childhood, must be different from that employed in adults. Realizing this, Dr. E. Saalfeld, in the *Deutsche Medicinische Wochenschrift*, July 3, 1890 has endeavored to place the treatment of eczema in children upon a rational basis.

The disease in children owes its origin, in many cases, to excitation, or chafings, between the naves, in the bend of the knee, and in the folds of the neck. This is most fre-



quently met with in fleshy children. In eczematous intertrigo, when the usual household remedies, such as salves and powders, have failed to give relief, a careful regulation of the diet and a change of food is primarily indicated. Very frequently diarrhea will be an accompanying symptom, and this should be checked at once. If the skin is highly inflamed, a cool application of equal parts of a five-per-cent solution of boric acid and lead-water, and the use of a five-per-cent boric acid ointment will be found most beneficial. If the skin is moist, it should be dried with powder, before the ointment is applied. In cases of eczema of the head and face the diet should be very plain and contain as little fat as possible. The bowels should be kept open by means of suitable laxatives. The flakes and scales should be moistened with olive oil and removed. The underlying skin may then be treated with an ointment composed of boric acid, one and one-half parts; oxide of zinc and starch, of each five parts; vaseline thirty parts.

In general eczema, especially of a scrofulous origin, the constitutional treatment plays a most important part, and should include a careful regulation of the diet, the administration of cod-liver oil in connection with phosphorus and arsenic internally. The local treatment in these cases should consist merely in the application of vaseline and subsequent powdering.

Naturally, before any treatment for general eczema is instituted, a careful examination of the skin should be made, in order to exclude the possibility of the disease having been caused by the presence of parasites.

In conclusion, Saalfeld warns against the use of tar, since it is very irritating to the skin of children. Its place may, however, be ably filled by an ointment composed of white precipitate of mercury, one part; balsam of Peru, five parts; and benzoinated oxide of zinc ointment, thirty parts.

Naturally, the hygienic surroundings of the patients is very important; well-ventilated rooms, fresh air and scrupulous cleanliness, all contribute largely to a rapid recovery.—*Medical and Surgical Reporter.*

MODERN TREATMENT OF STRABISMUS.—In the paper the author contrasted the idea formerly prevalent, that the squint operation is very easy of performance, and requires no special accuracy in the estimation of the amount of deviation present, with the modern view that the correction of strabismus should be preceded by the most careful and accurate tests, and that the operation should be a graduated one, controlled by the most precise examinations made

before and during its performance. Adopting Mauthner's division of squint into spastic, accommodative, concomitant, and paralytic, he pointed out that the first two varieties were in the main to be corrected by fulfilling the casual indication; that is, spastic squint, being usually due to hysteria, meningitis, or some other disease of central origin, requires treatment directed to these affections; while accommodative squint and strabismus exanopsia demand relief of the ciliary spasm by means of atropinization and correction of the faulty vision. In concomitant squint, the apparently obvious indication of tenotomy is by no means universally indicated, and he drew a strong line of distinction between cases with marked relaxation of the tendons, in which advancement (including sometimes even advancement of the apparently contracted tendon) was required, and cases with too great tension of the tendons, in which tenotomy (including even, perhaps, tenotomy of both of two opposing tendons) was demanded. He cited a remarkable example of a case of squint, with tendon relaxation, in which a divergent squint was rendered less by advancement of the external rectus, and quite cured by advancement of all four of the lateral recti. In paralytic squint, after briefly adverting to the general inutility of constitutional treatment, he enunciated Alfred v. Graefe's rules for the operative treatment. These are, in brief, to do the compensating operation (tenotomy of the associated antagonist) wherever possible, that is, in paresis of the internal and external recti, and of the superior and inferior oblique; to do tenotomy of the direct antagonist only in paresis of the lateral recti, and then only as an adjuvant to the compensating operation; and to advance the paretic muscle in paresis of the superior and inferior recti, and also in paresis of the lateral recti when the preceding operations are insufficient. He cited two cases of paresis of the superior oblique seen by himself, one of which he had successfully treated by operation; and one case each of paresis of the superior and of the inferior rectus, likewise successfully treated according to Von Graefe's rules.—*Dr. Duane, Virginia Medical Monthly.*

A CASE OF MUMPS FOLLOWED BY MENINGITIS.—There has been lately in this district of Eastern Lincolnshire a rather severe epidemic of mumps, chiefly remarkable for the number of adult sufferers. Several of the males suffered also from orchitis, so much so that this complication was rather the rule than the exception. In the case of a little boy about seven years old, there was very severe, deep-seated abdominal pain, which I could not avoid refer-

ring to some inflammation of the pancreas; it came and went very suddenly; there was no inflamed testicle here. But in one case the brain symptoms were so severe that I think a few notes about it will be considered worth recording.

Mr. M. S., aged thirty-five years, corn factor, etc.; fair health except tendency to headaches and sluggish bowels. On Friday afternoon, September 19th, he complained of a swollen neck and a feeling of slight malaise. I found the parotid gland of the left side very tender and enlarged. Ordered a mixture of citrate of potash, liquid diet, and local application of poultices. On Tuesday, the 23d, I saw him again. He had treated the matter rather lightly, and, feeling better on Monday, he had attended a market about ten miles off, and had driven some distance in an open trap. He thought he had taken a chill, and had shivered. I found his right testicle swollen and tender, and the parotid swelling almost gone. He complained of thirst and very severe frontal headache. Temperature a little over 100°. I ordered him to rest in bed. The next day I found him restless and anxious, the headache most acute, "all over his head." He had not slept at all. Bowels not acted; urine scanty; temperature 103.5°; very thirsty. He complained of severe precordial pain, which was, however, relieved by a mustard poultice. At 9:45 p. m. the same evening, although a purgative had acted on the bowels once, he was much worse; the eyes were injected; pupils both contracted; headache intense; a little excitable, but not delirious; temperature 104.5°; pulse 120, hard and bounding. My friend, Mr. Charles Walls, of Burgh, saw him with me about half past 11 the same evening. We ordered fifteen grains of bromide of potassium to be added to each dose of the mixture he was taking. Cold-water cloths were continuously applied to the head. The next morning he was still suffering from acute pain all over the head. He had not slept; he showed some tendency to ramble. Temperature 105°. The cold cloths seemed to increase the pain; we therefore ordered hot sponges, wrung out in hot water, to be used instead, continually, and after an hour this greatly relieved the pain. No sickness, except after a dose of castor oil; another dose was retained. Soda water and milk at intervals. On the evening of the 25th the temperature had fallen to 103.5°. Hot sponges still continued, with hardly any interval. Still has feeling of nausea, but retains the soda and milk. The room was kept darkened, straw laid down thickly outside the house, as the slightest noise troubled him. During the night he slept a little, and at my first morning

visit on the 26th I found the temperature barely 102°. Hot sponging continued all day. Bowels open. Pulse 100, intermittent 1 in 13. 27th: Temperature 100.5°; pulse 84. Still headache. 28th: Temperature subnormal 97°. From this point he made a continuous but slow recovery. The headache continued, but was always relieved after the hot sponging. October 7th: Can walk a little about the room. 20th: Out of doors; says he feels quite well.

I have recorded this case at some length, although brain symptoms are alluded to in connection with mumps in some text-books, I cannot find any detailed cases. In this case there was nothing more acute than usual when the parotid gland was first inflamed, but there was most certain evidence of a chill contracted while suffering from the slight feverishness which always occurs in mumps.—*Dr. Doudney, Lancet.*

EFFECT OF HIGH TEMPERATURE ON THE TYPHOID BACILLUS.—*Dr. Janowski (Centralbl. f. Bakt. u. Parasitenk., Bd. viii, Nos 14 and 15, 1890)* in the course of his experiments on the action of high temperature on the typhoid bacillus, says that, with the exception of Sternberg's experiments, there are none that can be taken as entirely satisfactory, the results being vitiated by more or less imperfect methods. By the use, however, of a double-walled vessel, the inner chamber containing water, the outer a layer of hot air, and the outer wall surrounded by felt, except where the Bunsen is applied to heat the air, he obtained a vessel in which the radiation and conduction were so equalized that the water remained at the same temperature throughout for a considerable length of time. By placing test tubes within this chamber, and heating the gelatine contained in them to a required height before introducing the material to be tested, he was able to get extremely satisfactory results. Using typhoid bacillus grown for three days on gelatine, or from four to five days on potatoes (so that spores might be present), he exposed these to various temperatures, ranging from 40° to 80° C., for periods of from five to ten minutes, and then made "tube-plate" cultivations according to Esmarch's method. Down to 55° C., when exposed for ten minutes, the cultivations were almost sterile—that is, the bacilli had been destroyed, but 55° C. for five minutes was not sufficient to prevent their germination when again placed under favorable conditions. In only one case, after an exposure to 56° C. for ten minutes, were three colonies developed. In all other cases complete destruction of the typhoid bacillus was obtained at this point, and he therefore looks



upon 56° C. as the temperature fatal to its development. In this, his experiments agree with Sternberg's. As regards low temperatures, from a large number of experiments that he made on typhoid bacilli, both by submitting these to natural and artificial cold, in broth, and dry on threads, he came to the conclusion that, although the results vary somewhat in different cases according to the conditions in which the bacillus exists during the period that it is exposed to the cold, an extreme degree of cold, especially when continued for some time, or where frequently repeated, has a markedly injurious effect upon the vitality of the typhoid bacillus, a temperature of 14° C. being sufficient completely to destroy the bacillus in a fluid medium. In the dry condition this does not always hold good.—*British Medical Journal*.

**TREATMENT OF HEMOPTYSIS.**—The Canada Medical Record advises the use of the following mixture in hemoptysis (Weekly Med. Review):

Tr. digitalis.....3 jss;  
Ol. terebinth.....3 iij;  
Ol. menth. pip.....℥ xx;  
Acid. sulph. arom.....3 iij;  
Spt. vin. rect.....3 xvj.

M. S: Forty to sixty drops well mixed with sugar, to which one or more tablespoonfuls of water may be added every two, three, or four hours, according to the urgency of hemorrhage.

**THE REMOVAL OF FRECKLES.**—The Pharmaceutical Record quotes the following prescriptions for removing freckles (Weekly Medical Review):

White precipitate, } aa.....3 j;  
Bi-muth subnitrate }  
Glycerite of starch.....3 iv. M.

Apply every second day. Or,

Sulphocarbolate of zinc.....3 j;  
Glycerin.....3 iij;  
Alcohol.....3 j;  
Orange-flower water.....3 jss;  
Rose water sufficient to make.....3 viij. M.

Apply twice daily.

**WHOOPIING COUGH.**—(Germaine See, in *Jour. de Medicine*):

Powdered belladonna root.....gr.  $\frac{1}{8}$ ;  
Dover's powder.....gr. ss;  
Sublimed sulphur.....gr. iv;  
White sugar.....gr. x.

M. Sig: Take in one dose from two to ten times a day, according to age of patient and effect produced.

**ON THE ABSORPTION OF PARTICULATE SUBSTANCES BY PEYER'S PATCHES.**—The investigations by Wassilieff-Kleimann (*Arch. f. exp. Path. u. Pharm.*, xxvii, 3 p. 191) were made on the Peyer's patches of rabbits in the Pathological Laboratory of Berne. Under nor-

mal circumstances some of the leucocytes of the patches, and also some of the large protoplasmic cells present in them, contain pigment, but the pigmented cells always lie near the base of the follicles, that is, next the muscularis mucosæ, and are thus in close relation to the lymph stream. The pigment—which gives no reaction for iron—seems to be derived from the blood pigment, for, when ox-bile is injected under the skin, this causes dissolution of a large number of colored blood corpuscles, and then the leucocytes of the patches contain a large amount of pigment, which is either uniformly distributed within each follicle, or forms a ring of colored leucocytes round the periphery of the follicles. If a large quantity of finely-divided cinnabar be injected into the veins, this substance is also taken up by the leucocytes of the patches from the blood. It is evident, therefore, that the leucocytes of Peyer's patches, like leucocytes generally, can absorb into their interior particulate substances. It seems, however, that they can also take into their interior particulate substances derived from the intestinal canal. This is obviously a matter of great importance. Fungi were found in the leucocytes of the vermiform process, most of the fungi being found within the cells, but they occur nearer the center of the follicles than is the case with pigments derived from the blood. If carmine or china ink was mixed with the food, then all patches of Peyer were colored. The pigment was partly free and partly included within the cells of the patches, particularly in the large cells. The particles derived from the intestinal tract seems to have been absorbed without the intervention of the leucocytes, for, like the fungi, they are found in the central part of the follicles. In some animals the experiments by feeding them on colored matter did not succeed, as the animals died of enteritis.—*British Medical Journal*.

**LOCAL DEPLETION OF THE CERVIX UTERI.** Taking blood from the cervix uteri, though not so much practiced as formerly, is still a valuable aid in some gynecological cases. I now never puncture the cervix, as the same advantages can be gained by scarification, viz., merely drawing the end of a rounded sharp knife across the os and cervix, which gives rise to no pain, and has the advantage of safety, as I have seen severe hemorrhage follow puncture. When the part looks congested and blue, instead of the ordinary light pink, or mother of pearl, as some describe it, I make it a rule to take a little blood by scarification; and I use nothing to check bleeding, as this always ceases when enough blood has flown, as shown by the



altered color of the part. In cases of stenosis and flexion, when there is any considerable difficulty in passing the sound, I scarify the part, and when bleeding ceases I have never failed to introduce the sound or point of my dilator. I learned this proceeding from noticing how relaxed the uterus and cervical canal become after hemorrhage from that organ. If more blood is wanted when the bleeding has ceased after scarifying, I fit a sponge into a holder large enough, when moist, to tightly fill the cylindrical speculum, and by moving it up and down, I produce a vacuum in the speculum, and thus cup the cervix. I have found this a useful proceeding in cases of amenorrhea from congestion, and hope that gynecologists will give the plan a trial. I also found it useful during the menopause when the patient complained of intense headache, more especially of the vertex, and by drawing blood at regular intervals, and so imitating nature, I have been able to give more relief, and in a far shorter time, than by the use of drugs.—*Mr. Alexander Duke, Lancet.*

**PREVENTIVE TREATMENT OF SYMPATHETIC OPHTHALMIA.**—Dr. Rolland defines *Recueil d'Ophthal.*, pp. 527-538) sympathetic ophthalmia as including the different pathological conditions which may arise in a healthy eye, in consequence of changes in the other eye arising from a traumatic or spontaneous cause. He enumerates the following spontaneous causes: "irido-choroiditis, anterior synechiæ, staphylomata, tumors and ossification of the choroid, tuberculosis of the iris, panophthalmitis without external wound, dislocations of the lens, glaucoma, hydrophthalmia, detachment of the retina, entropion, symblepharon, cysticercus, and herpes zoster." Although the author makes no distinction in the mode of production of sympathetic neurosis and inflammation, he evidently considers the first as an early stage of the second; therefore conditions which cause the first must, according to him, be capable of causing the second. He holds that transmission to the second eye may take place along any of the various channels that have been suggested, and the cases probably differ in this respect, that as there are no means of telling in a given case which is the conducting channel, enucleation, which interrupts them all, is the only safeguard. The following are his conclusions: 1. When an eye, lost from any cause, is the seat of continuous or intermittent tenderness, or is in a condition of acute or chronic inflammation, it may give rise to sympathetic affection of the other eye, and enucleation is called for; (2) enucleation should be had recourse to on the earliest appearance of sympa-

thetic symptoms; when irido-choroiditis with exudation has already occurred it is seldom effectual; (3) when an eye has been destroyed by an injury, immediate enucleation should be performed, the patient being thus protected from the pain of the inflammation in the injured eye, and from all risk of sympathetic affection of the sound eye.—*Brit. Med. Jour.*

**CHRONIC, SO-CALLED RHEUMATIC AFFECTIONS.**—When the term chronic rheumatism is used, it should be limited to those cases in which the joints are painful but not swollen, or in which there is a neuralgia or an arthralgia associated with myalgia or apart from it; or in which the fasciæ are affected, or in which there is a general neuralgic condition supervening on an acute attack of rheumatism. This is what we prefer to call "chronic rheumatism." But in speaking of the symptoms of rheumatoid arthritis, I will make reference to those symptoms which are sometimes put down as common to both. Let us imagine two patients sitting side by side, one with chronic rheumatism, and the other with rheumatoid arthritis. Now, what do we see? In the rheumatoid arthritis case the first thing that strikes us is most probably the pallor of the patient, as compared with the chronic rheumatic. We look a little closer, and the next thing we perceive will most probably be the joints. The patient with the chronic rheumatism will present in this feature little or nothing; whereas, on the other hand, the rheumatoid arthritis patient will be more or less crippled. There will be distinct muscular atrophy in the rheumatoid arthritis case, and the complexion will present the pallor mentioned before, showing on close inspection yellowish tinges on the face, neck, and perhaps elsewhere. If we ask both patients if they ever had rheumatic fever, they will probably say no; but further inquiry will elicit the probable fact that the family history of the patient with rheumatism will be a good one, or perhaps at the most a rheumatic one while the rheumatoid arthritis patient, in most cases, gives or shows a strumous taint. It is upon the basis of this strumous taint that we feel we must look for further assistance to guide us in the treatment of this terrible crippling malady. It is nearly always present more or less. We are aware that this strumous history has not been particularly referred to in other descriptions of the disease. Its being the almost invariable accompaniment has induced us to bring the matter forward. In fact, to look upon struma and rheumatoid arthritis as cause and effect has seemed to us the one plain characteristic in our investigations.—*Lane, London Lancet.*

IN a severe case of acne associated with rosacea Shoemaker advised and prescribed as follows (*Times and Register*): Wash the face in hot water, as hot as can be borne. Drink a cupful of hot water upon retiring and upon rising. Have the pustules punctured by a physician; the incision thus produced will not cicatrize, whereas, if they are squeezed, they heal with a scar. Take internally:

Liq. potassii arsenitis, } aa.....gtt. lxxij;  
Tr. nucis vomice..... }  
Aloini.....gtt. ij;  
Aq. menthæ pip.....q. s. f3 iiij.

M. Sig: f3j *ter in die*.

Apply externally:

Acidi borici..... ʒj;  
Lanolini..... ʒij;  
Ol. eucalyptol.....gtt. v;  
Ung. zinci oxidi..... ʒj;  
Bismuthi subnit..... ʒj

M. Sig: Ft. unguentum.

For a case of herpes induced by a remote traumatism Shoemaker prescribed, internally:

Ext. malt..... f5j;  
Elix. ferri lactatis..... ʒss.

M. Sig: This quantity thrice daily.

Externally, to allay the inflammatory action of the integument:

Cocainæ..... gr. ij;  
Sulphuris subl..... gr. x;  
Zinci carbonatis..... ʒj;  
Maranta..... ʒj;  
Puly. camphoræ..... gr. x;  
Ung. aque roseæ, } aa..... ʒss.  
Ung. zinci ox. benz...

M. Ft. ung.

**DEMONSTRATION IN MANCHESTER.**—Dr. Gumpert, Consulting Physician to the Clinical Hospital for Women and Children in Manchester, has given daily demonstrations during the present week of the method of using Dr. Koch's remedy. On December 9th he gave a short address. He stated that his first injections had been made on December 5th in five cases, two of lupus, one of tuberculosis of the lungs and larynx, and two of tubercular disease of joints and bones. It was not, he said, advisable to commence the treatment with larger doses, as a rule, than one milligram. It was apparently to the local changes that the rigors, rises of temperature, and the various other symptoms must be attributed. In no other affection could events be watched better than in lupus. If a centigram was injected into a patient suffering from true tubercular lupus the affected part began, as a rule, within five or six-hours to get redder and turgid. The redness changes into a dark brown. Oozing of serum occurred from the parts, which eventually became covered with scales and

thick crusts. According to the severity of the local reaction these changes disappeared after a shorter or longer time, and, after the lapse of several days, a surface was left looking much healthier than before the operation, and in some cases the diseased part seemed to be entirely cured after four or five injections. Very grave general symptoms have been observed at times, such as unconsciousness, lasting for many hours and even days, great and alarming prostration, etc., and he was therefore opposed to the practice of beginning, even in cases of lupus apparently uncomplicated, with doses above one, two, or, at the most, three milligrams.

Koch's fluid produced most promptly, as no other substance did, those retrogressive changes necessary for the elimination of tuberculous tissue—the first and most important step toward recovery. Experience only could show in which cases recovery is still possible.

Though incapable of acting on bacilli in caseous parts, it was not at all impossible or improbable that the fluid might have very deleterious action on the bacilli contained in the living tuberculous tissue. Professor Fraentzel first pointed out that after the treatment of phthisical patients by Koch's method, a large number of bacilli showed distinct changes; they were thinner and shorter, often with thickened ends, and frequently broken. Dr. Gumpert had seen these altered bacilli in Professor Fraentzel's laboratory, and was inclined to think that he was right in attributing these changes to the influence of Koch's fluid.—*British Medical Journal*.

**CASTOR OIL** is a drug which has not yet been, and is not likely to be, altogether supplanted by its more modern rivals, says the *British Medical Journal*; nevertheless it has been found that patients often decline to take it, and choose some more palatable, but less efficient substitute. The best way of taking castor oil is thoroughly to mix the dose with about four times as much hot milk; that is most effectually accomplished by shaking the two together in a bottle which they do not more than half fill. When taken as above directed, the activity of the oil appears to be increased, and, being rendered very limpid by the hot milk, its oily nature is not perceived. Children take it very readily in this form, in which, indeed, it is scarcely distinguishable from rich milk.

**A PLEA FOR SIPHON DRAINAGE IN EMPYEMA.**—In the last number of the *Zeitschrift für klinische Medizin* for 1890, Dr. G. Bülow raises the question of the drainage treatment of empyema, and makes an appeal for siphonage as opposed to simple incision or resection



of ribs. Siphonage has got into disrepute with certain authorities, not because of its own defects, but because it has not been properly applied. Several cases are quoted to show the kind of results that may be obtained by means of siphonage if used carefully, one of which illustrates two facts of considerable importance. It proves conclusively that the lessening of the pressure within the pleura is an active factor in the re-expansion of the lung, and also that a lung is still capable of being thus re-expanded after having been subjected to pressure and consequent inactivity for a period of fifteen months. The application of siphonage after the chest has already been opened and drained by simple incision is also proved to have been successful in aiding the re-expansion of the compressed lung. He advises that the skin should be nicked with a scalpel before the introduction of the trochar, and that a tube should be passed in through the canula, the latter being withdrawn over it. The tube being then firmly secured to the side and sealed to prevent the entry of air, the slow escape of the fluid through a siphon attached to the tube is followed by a corresponding expansion of the lung. This result is, of course, modified by the adhesive and other changes that may have taken place in the pleural layers, but it is claimed that in such cases expansion is equally impossible under all forms of treatment. The possible blocking of the tube by coagulating fibrin, etc., is not regarded as a serious defect in this system of drainage, as it can generally be got over without difficulty. Nor is the nipping of the tube by the ribs or healing tissue a matter of importance. When re-expansion has taken place to a considerable extent, the siphon arrangement may be discontinued and a short tube left in, guarded at its orifice with a valvular covering of goldbeater's skin, to permit the exit of fluid but not the entry of air. As a general guiding principle of treatment, Dr. Bülow maintains that if the same result can be got by simple means, such as siphonage, the more serious measure of re-section of ribs can not be justified until other means have failed.—*British Medical Journal*.

**THE DRY TREATMENT OF CHANCROIDS.**—It is generally conceded that if chancroidal ulcers can be kept perfectly dry a great step has been taken toward their rapid healing. With this view, the following procedure has been used to some extent in the surgical divisions at Bellevue Hospital, New York: A small roll of absorbent cotton about one half an inch in diameter and long enough to surround the penis just behind the corona, is put in that position after the prepuce has been well retracted. A rubber

thread band is slipped over this ring of cotton in order to hold it in its place. By this means the sulcus behind the glans is obliterated, which is especially liable to retain the secretions, and the prepuce is held back from contact with the ulcerated surface. The cotton absorbs the exudation from those surfaces almost as soon as formed. The dressing is light, is easily handled, and may be renewed as often as needed to keep the parts in a dry condition. In addition to chancroids, herpes preputialis and venereal warts have been found to heal rapidly under the use of this dressing; sometimes no other treatment has been found necessary for these local lesions.—*Weekly Medical Review*.

**BLOODLESS TONSILLOTOMY.**—Prof. J. Toison, of Lille (*Rev. de Ther. Med. Chir.*, October 1), discusses the various methods of reducing or removing enlarged tonsils. He begins by saying that excision of the tonsils with the bistoury or the guillotine is gradually losing favor among surgeons on account of the risk of hemorrhage. Ignipuncture with the thermo-cautery or the galvano-cautery is often useful, but should be reserved for cases in which the tonsils are only moderately enlarged and can be sufficiently reduced in one or two sittings, and for cases in which some anomaly of shape in the hypertrophied glands makes it difficult to remove them with a cutting instrument. For ordinary cases, Prof. Toison uses a new snare of his own invention, which, according to him, effectually obviates all danger of bleeding. The apparatus consists of a *serre-naud*, the metallic loop of which, instead of being free, is fixed by three silk threads to a blunt ring fixed to the distal end of the instrument. The ring is passed over the tonsil, which is then seized with forceps; the wire loop is next pulled home in the usual way, the traction being sufficient to snap the silk threads which fix it temporarily to the ring. The tonsil is thus cut through without bleeding. Prof. Toison has performed this operation several times since last April; in no case has there been any hemorrhage.—*British Medical Journal*.

**CREOLIN: ANTISEPTIC OR TOXIC?**—Some important evidence as to the action of creolin on the human subject may be gathered from a thesis on that compound published at Breslau during the course of this year. Dr. Bitter, the author, notes that creolin has already been used in more than 2,000 midwifery cases at Breslau. As appears to be the case with nearly every new compound of the kind, the results, according to Drs. Born and Bitter, are most encouraging. In four of the midwifery cases, however, symptoms of poisoning occur-



red during the administration of a course of creolin injections. Three of the patients were suddenly seized with feelings of restlessness, anxiety, nausea, darkness before the eyes, and a tendency to syncope. The most peculiar feature in these cases was a strong flavor of tea or smoke in the mouth, of which all the patients complained. This symptom lasted for a long time, while the nausea, etc., disappeared immediately upon the discontinuance of the vaginal injections of creolin. The fourth case was more severe; the patient suffered from great restlessness and prostration for several days after the injections were left off. About thirty six-hours after the beginning of the attack the urine, drawn off with the catheter, was very dark and strongly albuminous. Within a few days these symptoms of acute nephritis disappeared. Dr. Bitter advocates creolin as superior to other disinfectants on account of its "relatively" (*sic*) non-poisonous qualities, its excellence as a deodorizer, and its blandness when applied to skin, mucous membranes, and wounds. It neither dries the vaginal mucosa nor causes any contraction of the canal. Creolin has no special hemostatic action. Dr. Bitter finds that there are disadvantages in creolin, as the emulsions employed for injections are opaque, and the preparation of creolin usually on sale appears to be unstable. *British Medical Journal*.

ARISTOL.—I have drawn the following conclusions after observing its action during the past five months:

1. The drug is free from all objectionable odors.
2. When used over large surfaces you obtain all of its medicinal effects without any toxic effect. It is not absorbed.
3. It possesses stimulating, alterative, and anesthetic properties; the latter effect less marked than that obtained from iodoform.
4. It does not produce any discoloration of the skin.
5. On account of its dark color you can readily observe how far the powder has been used on a diseased surface.
6. It is not irritating, and its use is not contra-indicated in the treatment of facial eruptions, as chrysarobin and pyrogallie acid.
7. It appears to possess the necessary properties to make it an efficient substitute for iodoform.—*McLaughlin, Va. Med. Monthly*.

MASSAGE IN CHRONIC ULCERS.—In Aden one has to treat numbers of ulcers of feet and legs, some quite incurable, probably dependent mainly for their origin on the want of vegetables and animal food, though few of them are

actually scorbutic. The following case illustrates the extremely varied nature of the means that have to be adopted. A patient slightly scorbutic had an ulcer two inches long and one and a half inches broad on the dorsum of his foot. The signs of scurvy soon cleared up, but in spite of the most varied dressings, elevation, poultices, and free, deep incisions, after two or three months' treatment, the ulcer remained of much the same size. There was a broad, dense margin of cicatricial tissue, and outside this the remaining skin of the dorsum was smooth, pigmented, and immovable on the underlying structures. Then we started massage for half an hour twice daily, with simple dressings. The patient was made to knead and rub the surrounding skin, so as to soften and loosen it. The ulcer at once began to improve, at first rapidly and afterward more slowly, and now, in little over a month, it has quite healed, though the skin is still pigmented, and rather glossy and bound down. This seems such a common-sense mode of proceeding as to be scarcely worth mentioning; yet it is one that is very apt to be overlooked, and shows the need of departure from the regular routine practice. In very large ulcers of the leg which have partly healed, and so become surrounded by a more or less dense and extensive superficial cicatrix, this manipulation has been of much benefit, softening the tissues and improving the defective blood supply.—*Mr. H. Herbert, British Medical Journal*.

RAPID EFFECTS OF KOCH'S REMEDY IN LARYNGEAL PHTHISIS.—Professor Oppenheimer, of Heidelberg, reports the following case (*Deutsche med. Wochenschr.* December 4, 1890): The patient was a woman, aged twenty-eight, who had been ill for two years. She had infiltration of the right upper lobe, dullness at the left apex, bronchial breathing, moist râles, and bacilli in the sputum. Since September of the present year she had continual fever, with evening exacerbations and night sweats. She complained of irritation in the throat, which brought on paroxysms of coughing from six to eight times a day, and made her vomit most of her food. This, and the hoarseness of her voice, made Professor Oppenheimer suspect that the larynx was implicated in the disease, but laryngoscopic examination was impossible, owing to the irritability of the throat, which even the free use of cocaine could not subdue. She was very weak when Koch's fluid (one milligram) was injected for the first time on November 22d. Reaction was slight; the coughing and vomiting continued during the day as before. On November 23d she was again injected (one milligram). Nine hours

afterward the temperature rose from 37.6° to 39° C. During the following night there was much sickness, with headache and coughing; expectoration was diminished. On the 24th one milligram was again injected. In about six hours the temperature again rose to 39° C., and the patient complained of giddiness, shortness of breath, with a feeling of contraction in the throat; there was no difficulty in swallowing, the cough was less, but the voice was somewhat hoarser than before. With great difficulty a laryngo-copic examination was made, and it was seen that on the fore part of the right vocal cord there was a bluish red excrescence of the size of a millet seed, the rest of the cord being grayish red in color, but otherwise normal. The ventricular bands and arytenoid cartilages were normal. On the following day the excrescence had disappeared, and only redness and slight swelling of the vocal cord remained. From that day the paroxysms of coughing and vomiting entirely ceased, and up to the date of the report (December 1st) never recurred. The only thing the patient complains of is slight pain in the region of the larynx, which comes on from eight to ten hours after each injection, and lasts from three to four hours. No improvement has, however, taken place up to the present in the lung symptoms.—*British Medical Journal*.

McCONNELL gave the following as the latest and best internal treatment for gonorrhea:

Salol.....	3j;
Oleores. cubebæ.....	3j;
Copaibæ.....	3j;
Alumini.....	3iv;
Pepsinæ sacch.....	5ss;
Ol. gaultheriæ.....	gtt. x.

M. Ft. capsul No. xx.

Sig: Two every three hours.

This treatment prevents the occurrence of gonorrheal rheumatism. The salol is slightly decomposed by the gastric juice, but is actively decomposed by the intestinal juices into salicylic and carbolic acids, thus acting as an antiseptic in the urinary tract through which it is eliminated.—*Times and Register*.

**A PROLONGED FORM OF ACUTE COCAINISM.** At a meeting of the Paris Académie de Médecine on December 2d M. Hallopeau presented a communication, in which, after distinguishing two forms of cocaine poisoning—namely, the acute, in which the symptoms are produced immediately after a dose and speedily pass off, and the chronic, in which they are due to the prolonged use of the drug—he related a case which in his opinion showed that the poisonous effects, while coming on acutely, might last for a considerable time. On March 7, 1890, a

man had about eight milligrams of hydrochlorate of cocaine injected into his gum as a preliminary to the extraction of a tooth. Toxic symptoms at once supervened. There was intense precordial oppression, with thready pulse, extreme excitement, and loquacity; the patient walked about the room, hitting out at random with his fists and crying out that he was dying. In ten minutes he became quiet and the tooth was extracted, after which he was able to walk home, arriving there, however, in a state of extreme prostration. Then ensued a train of nervous symptoms, such as continual headache, intractable sleeplessness, bad taste in the mouth, with occasional attacks of excitement accompanied by giddiness, faintness, and a sense of impending death. All brain work was impossible; the patient could not do the simplest sum in arithmetic, and was in a state of profound depression. A sense of formication and numbness in the hands and forearms was almost incessant. This condition lasted four months, and it was two months after the injection before the least improvement was observed, and then progress toward recovery was slow. M. Hallopeau thinks the symptoms indicate a poisonous action of cocaine on the nervous centers, and especially the brain. As it is impossible to suppose that so small a quantity of the drug should have remained in the circulation, he is driven to conclude either that it was stored up in the cells of certain nervous centers or that it produced in them persistent lesions. The prognosis in such cases is serious, in the sense that the illness is severe and may be protracted, and the disablement for business is complete while it lasts.—*British Medical Journal*.

**EHRLICH'S TEST FOR TYPHOID FEVER.**—Make two solutions, one consisting of 72 minims hydrochloric acid and 10 grains sulphanic acid in 3 ounces distilled water; the other, a freshly-prepared ½-per-cent solution of sodic nitrite in distilled water. To 26 parts of urine from a typhoid-fever patient, add 25 parts solution 1, and 1 part of solution 2, and the mixture is rendered alkaline by addition of ammonia. A bright orange-red color appears.

**HOW TO AVOID THE INDUCTION OF PREMATURE LABOR.**—All kinds of heroic operations, obstetrical and surgical, are now frequently performed in cases of contracted pelvis in pregnant women, and the triumph is only perfect when the child is saved as well as the mother. Induction of premature labor exposes the child to great risk; its digestive functions are very weak for some time after birth. Dr. Prochownik claims to have successfully carried on



labor to term in three women, by controlling their diet, saving the children. The dietary consisted of a small cup of coffee with about one ounce of bread, dried in an oven, for breakfast; of meat, egg, or fish, with but little sauce, for dinner, with green vegetables, boiled with butter, salad, and cheese; and the same diet for supper, with about two ounces of bread and butter. A little Moselle or claret is allowed. Water, soup, potatoes, sugar, and beer are absolutely forbidden. This diet only slightly reduces the strength of the mother, and does not appear prejudicial to the child, according to Dr. Prochownick's experience. It simply diminishes the quantity of fat, and perhaps lessens for a while the solidity of the bones. Dr. Prochownick considers that a thin child born at term has a better chance of living than a plumper infant delivered prematurely. The exposure to air and subsequent artificial feeding at the seventh month involve far greater risks than reduced nutrition during two months' longer residence in the uterus. The narrowest conjugate diameter of the pelvis in the three cases successfully delivered was ten centimeters.—*British Medical Journal*.

**SALOLIZED COLLODION.**—In both acute and chronic rheumatism the following will serve as an excellent application to the joints:

Salol,	{	aa.....	parts 4;
Ether,			
Colloidon.....			parts 30. M.

**LEAD POISONING.**—Dr. G. L. Walton (Boston Medical and Surgical Journal, October 30, 1890), records a fatal case of lead poisoning in which ataxia was the prominent symptom. The patient was a man, aged fifty-four, whose first manifestation was numbness in the hands. This passed off; then numbness showed itself in the left foot, and persisted, gradually spreading up the leg until it reached the back. This numbness and an increasingly staggering gait were the chief things he complained of. There was an uncomfortable sensation in the head, hardly amounting to headache. He had no eye troubles, no pains, no wrist-drop, no loss of power in the limbs, no vertigo, no gastric crises. He could not stand with his feet together and his eyes closed; there was some loss of sensation in the left leg, knee-jerks natural, no ankle clonus, pupils natural, urine natural. The opinion was formed that he was suffering from neuritis of obscure causation. Two months later, the suggestion having been made that the case might be one of arsenical or lead poisoning, examination was directed to these points, and after the administration of iodide of potassium, lead was discovered in his urine,

but he still had no blue line and no wrist-drop, and no other manifestation of lead poisoning. The patient was treated with iodide of potassium and continued to excrete the iodide of lead, but he steadily grew worse, and died four months after the lead was first recognized. The only source of lead poisoning that could be found was an old kettle. It was tin-lined, and some water boiled in it for some time was subsequently found to yield traces of lead. Three cases of pseudo-tubes from lead poisoning have been reported by Dr. J. J. Putnam. *British Medical Journal*.

**PRECAUTIONS TO BE OBSERVED IN INTRANASAL AND PHARYNGEAL CAUTERIZATION.**—Dr. A. Maggiora and G. Gradenigo (*Centralblatt für Bakteriologie u. Parasitenk.*, Bd. viii, No. 21, November 13, 1890), after recommending the use of galvano-cautery, raised to a white heat, for the treatment of swelling of the mucous membrane of the posterior nares and pharynx, point out that such operations, unless quite bloodless, are frequently followed by the formation of a patch of white fibrinous exudation, in which may be observed large numbers of the staphylococcus pyogenes aureus. This organism seems to have a special power of determining the formation of these false membranes. As it is probably existent in the nostril before the operation is commenced, the authors recommend that a thorough washing out of the nostrils and posterior nares with disinfecting fluids should first be resorted to in all cases. Difficult as thorough disinfection of these cavities undoubtedly is, the authors were quite successful in preventing the formation of the membrane, even when slight hemorrhage took place—a very rare condition indeed where the di-infecting process is not first gone through. *British Medical Journal*.

FOR gonorrhea Shoemaker advises cleaning the parts with a hot solution of common salt, and the use as an injection of three grains of corrosive sublimate to six ounces of water. Internally he advises the use of terebene in ten-drop doses three times a day, in capsule or on sugar. In a gleet condition the combined use of terebene and belladonna, he thinks, is probably the best treatment. He instanced a case of gleet which had been treated by all the best venereal specialists in this country, which was finally cured by Ricord, of Paris, by the use of belladonna in one drop doses four times a day, increased to three drops three times a day. Terebene, he says, has not only a most decided action on the gonococcus, but has also a soothing and sedative influence on the mucous membrane of the urethral tract.—*Times and Register*.



# The American Practitioner and News

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## KOCH'S TREATMENT.

Notwithstanding the scarcity of the lymph, a systematic study of Koch's treatment in various phases of tuberculosis and analogous diseases appears to be going on at the leading hospitals of Europe and America. This is as it should be, since it is only by such study, under such circumstances as the well-regulated hospital affords, that the remedy may be safely exhibited, and its uses and limitations fixed. When this is accomplished it will be time for Drs. Smith, Jones, Johnson & Co. (who have been straining the code a little by newspaper deliverances on the topic) to put it to use in private practice. The quacks have already begun to reap a harvest of the lay excitement stirred up by Koch's announcement. For it is said that the woods are already full of self-styled physicians who can show a hypodermic syringe, and an adequate supply of the precious lymph, which they are prepared to shoot under the skins of any consumptive who can raise money enough to pay for the service. This is an evil necessarily consequent upon the premature announcement of so great a therapeutic new departure. But it may possibly redound to the good of scientific medicine in the long run, since if the genuine lymph have the efficacy

claimed for it, its effects under the hands of the real physician will make the failures of the quack so palpable that even the average non-medical man will be able to see them. This is what he is not able to do in the present state of therapeutic fashion, fad, and uncertainty.

Therapeutics, as we know too well, is the very weak arm of the profession. If it could be made to hold its own with pathology, semiology, surgery, and hygiene, medicine would at once take its place among the exact sciences, the death knell of quackery would be sounded, while ministers of the gospel and the editors of religious papers, through deprived of emolument though advertisements on the one hand, and of a pleasant means of supposed benevolent diversion on the other, would find time for the writing and preaching of a better theology than now too often emanates from the sacred desk and the sanctified tripod.

When medicine can stand in all its characters and poses under the full light of truth, there will be none so ignorant that he can not make the differential diagnosis between angel and devil.

The future of the new remedy (if it hold) is almost unspeakable. For if one zymotic disease may be cured by a product resulting from the culture of its specific microbe, by parity of reasoning, and indeed by scientific warrant, we may expect that each member of the class may be made to evolve its own specific remedy. With due and indeed few exceptions, then, treatment by expectancy (which in truth is no treatment at all) would be done away to our great professional enlargement, and disease would become in truth an entity to be physicked, *tuto, cito, et jucunde*, out of the body.

When this is realized the quacks in the profession will be compelled to strike tents and go, since none but educated and skilled physicians can practice under the new *regime*. And this, we need not say, will settle without controversy the vexed question of medical education.

But we must quit the delightful theme. If the above list of benefits have warrant of expectation in the case; that is, if time prove the therapeutic specificity of the lymph, Robert

Koch will stand as the greatest benefactor of his race and the grandest discoverer of all time. Indeed he will be the usherer in of the true millennium wherein health shall be attainable through the beneficent uses of scientific medicine. Epidemics will be a thing of the past, zymotic diseases will be easily curable, and death from natural causes (old age) or accident will be all that is left for the comfort of the necrologist and undertaker.

### Notes and Queries.

**TRICHINOUS PORK AND TUBERCULOUS BEEF.** If it is to be considered the duty of the members of a society of hygienists to look after and prevent mischievous restrictions being imposed on a trade involving the increase or diminution of a large food supply for the inhabitants of a country, as it undoubtedly should be, Dr. Prosper de Pietra Santa, in his report on *Les Viandes Américaines*, has from time to time rendered good service to the French working classes by his advocacy, through thick and thin, of a repeal of the decrees of the Government against the importation into France of American bacon and ham. When the prohibition was first decreed there was comparatively little inspection of pigs killed in the large slaughter-houses or of those killed on farms, and there can be little doubt that a very large number of "trichinosed" and "hog cholera" carcasses were imported to this side of the Atlantic. The trade in such uninspected meat assumed such enormous proportions that it became necessary to enter a protest against what was evidently a serious danger to the public health, and American statesmen and exporters were not slow to see this. Inspection became more general in the large establishments where animals were slaughtered for export, and microscopic examinations came to be made in all doubtful cases, with the gratifying result that although there is an average of about two per cent of trichinosed animals, cases of trichinosis in the human subject resulting from the ingestion of American pork or ham are now seldom heard of. The proportion of trichinosis in pigs in America is not

greater than it is in Germany. In France and England ham and bacon are usually thoroughly cooked, while in Germany they are frequently eaten raw, and, as a matter of fact, most of the recent outbreaks of tuberculosis have occurred in Germany, and a single carcass that is smuggled past the inspectors, who carry out a rigid system of inspection in the large centers of population, is sufficient to infect a very considerable number of persons. English administrators fortunately took the advice of practical and scientific men, who pointed out that although under certain conditions there was real danger to be apprehended from the use of trichinous pork, yet since raw ham or bacon is never used in this country, this danger was reduced to a minimum. In France, where the conditions are much the same, a somewhat foolish scare was got up, the most contradictory decrees in regard to a scare which scientific men have tried in vain to show was without cause, and for many years American pork and hams have been issued by the French Government, and while a large and valuable source of food has been wantonly passed by, some of the prohibited articles, and certainly not the best, have been smuggled into France as Belgian or York cured hams. What holds good of trichinosis will apply equally well to tuberculosis. Now that we know that there is a danger to be apprehended from the use, as articles of diet, of the products of tuberculous animals, no measures that can be adopted can be too stringent to prevent any possible spread of the disease; but when once the method of infection is thoroughly understood and when adequate measures for the destruction or elimination of the active virus of the disease have been devised, any restrictions that are found to be unnecessary may be freely removed. Until the disease is thoroughly understood, however, the first measures to be taken are compulsory inspection of all cattle and slaughtered animals, elimination from the food supply of all tuberculous material, and the granting of partial compensation to the owners of cattle for any loss they may suffer through what, though absolutely necessary for the present, may in the future prove to be too strict measure of protection. With-



out being panic-stricken in the case of tuberculosis, steps should undoubtedly be taken at as early a date as possible to allay the well-grounded feeling of uneasiness. Whatever stringent precautions the present Royal Commission on tuberculosis may recommend, and whatever may be the finding they come to as the result of their investigations, public confidence is sure to be strengthened, especially if no half measures be taken—half measures that can only be adopted from the fear that the loss entailed on the public purse or on private pockets might be excessive. The immediate indirect gain would be enormous, but this we confidently anticipate would be far exceeded by the enormous increase of profit that would accrue to farmers and butchers from the breeding and slaughtering of healthier stock.—*British Medical Journal*.

**AMERICAN ACADEMY OF MEDICINE.**—The Academy at its annual meeting, held at Philadelphia, manifested additional and practical evidence of its continued interest in the subject of liberal preparatory education of students in medicine. It showed active work also in the cause of higher medical education.

Acting upon a recommendation in the president's annual address, the academy voted to confine its efforts in future exclusively to its missionary work. Other medical organizations have become so numerous since the Academy was established that ample opportunity is afforded elsewhere for the presentation of all papers on purely medical subjects. This action on the part of the Academy makes it the only medical body in this country devoted exclusively to medical missionary work. It thus acquires a distinctive character.

Beginning its efforts at the foundation for profitable medical study—proper preliminary mental training—it has outlined a curriculum of study which it advises as qualifying to begin the study of medicine. One of its committees has been investigating the curricula of the different literary colleges of the United States with a view to ascertaining their relative advantages and the comparative value of the literary degrees which those colleges confer. A report made by this committee at the Academy's re-

cent meeting showed great differences in both respects.

Other committees report, from year to year, upon subjects connected with preliminary and medical education, such as the amount of preparatory mental discipline required by the different medical colleges for matriculation of students of medicine and their methods of determining that fact. Another committee reports each year upon the laws of the different States to determine the qualifications, professional and otherwise, of candidates for license to practice medicine where such laws exist, including the standard adopted by those States, the method of ascertaining the qualifications of applicants, the mode of enforcing the laws, requirements, penalties for violations, and kindred subjects.

Having thus begun, by judicious encouragement to young men to pursue such preparatory courses, and seeking to give reliable direction in their medical study, and evincing appreciation of the medical colleges which afford the best facilities for their students, the Academy, in accordance with another of the president's recommendations, decided to take an additional step in advance. It will endeavor to secure, through its Fellows resident in the different States, co-operation of the medical organizations of each State looking to legal enactments of all of the States to regulate the practice of medicine by granting hereafter licenses to practice only on examination, and regardless of the possession of diplomas issued by medical colleges. Such enactments have a two-fold effect: They make colleges, in effect, simply teaching bodies—which is their proper function—and they secure in future, for the protection of the people, physicians who are required to demonstrate to the constituted authorities of the State their qualification for the work in which they are seeking to engage, and they expose the pretensions of the unqualified. Such legislation accomplishes, by enforcing its requirements, what the Academy has been seeking to effect by other means in the interest of scientific medicine, which means interest in the health and welfare of the people of the States. Thus it becomes an instrument for conserving the material interests of the States themselves.

It is an encouraging feature of the times that

some six hundred of those who are recognized as being among the most liberally educated of the physicians of our country are united in a voluntary effort, and proceeding, at their own expense, in an unostentatious and systematic manner, in an effort to remedy recognized educational defects, and thus to elevate the profession of medicine, thereby benefiting mankind.

In such an unobtrusive manner has much of the Academy's preliminary work been done that it has attracted comparatively little attention. What has been accomplished merits recognition and commendation. Its efforts are such as should receive the cordial and energetic support of the medical profession of the whole country.—*Journal American Med. Association.*

**INFANT MORTALITY.**—Dr. William M. Capp, of Philadelphia, in a very interesting article on this subject, printed in the San Francisco Evening Bulletin, says :

The class of neglected and abandoned infants met with in foundling institutions is peculiarly disqualified for any prolonged struggle, for instance, especially against peculiarly adverse circumstances. They are often the offspring of vicious parents, and with tendencies to disease, and of deficient vitality. To these disadvantages are sometimes added positive neglect and exposure, the ill effect of which may not be overcome by even the most assiduous subsequent care and attention. Beside, hospital attention to young infants can rarely be equal to the motherly attention of a well-ordered home. It should not, therefore, be surprising that the mortality rate in foundling establishments will be greater than in the general community.

In the official annual statistics of Paris, published in 1880, there were received in hospitals : In 1874, 2,171 foundlings, of whom about 35 per cent, or 758, died within twelve months ; 1875, 1,720 foundlings, of whom about 40 per cent, or 694, died within twelve months ; 1876, 1,648 foundlings, of whom about 34½ per cent, or 568, died within twelve months ; 1877, 1,493 foundlings, of whom about 36 per cent, or 540, died within twelve months ; 1878, 1,890 foundlings, of whom about 34 per cent, or 643, died within twelve months ; and of those who suc-

cumbed during this series of years from 36 per cent to 48 per cent in the different years died in the first seven days ; from 31 to 43 per cent died in from eight to fifteen days, and 26 to 38 per cent died in from fifteen to thirty days.

The Austrian Statistical Handbook, published in 1888, gives the following figures, which show such a low average death rate that one is inclined to think they must be made up upon some plan different from that of the others quoted in this paper. Total number of foundlings in Austria for 1886 reported is 42,877, of whom 5,615 died (13.09 per cent). Of those retained in hospital 6.71 per cent died, and of those sent outside to the country 14.97 per cent died. The averages for the years 1882 to 1885 inclusive are about the same as those given for 1886. It is fair to suppose that many sent from town died, but, having been lost sight of, the death did not figure on the records of the institution.

In the Philadelphia almshouse, some years ago, the infant mortality rate was so high that it was mentioned only under the breath, but vigorous measures were instituted to better the conditions, and a decided improvement is manifest. Rigid hygienic rules were enforced, the quality of the food was looked after, and strict antisepsis, chiefly by thorough cleanliness of the feeding bottles and other utensils employed about the children, was insisted upon. Also all the women in the institution who were capable were retained as long as possible to act as wet nurses.

Official statistics upon these subjects are not gathered by the government in this country.—*Times and Register.*

**DRAM-DRINKING DOCTORS.**—From a long letter written by an eminent medical man we condense the following : I was greatly shocked at the number of persons intoxicated at the banquet given to the International Medical Congress at Berlin. My surprise was increased to note that many of them were eminent German and French teachers of medicine. I had supposed medical men, accustomed to use wine and beer daily, were less likely to be intoxicated than the partial abstinent American or Englishman, who naturally are more easily affected by



large quantities of wine. At the banquet given to the Congress at London a small number of medical men were stupidly intoxicated, and at Washington the number was still less. As far as could be observed, those cases were mostly persons not well known. At Berlin it was the opposite; many very prominent men and leaders were offensively hilarious or stupid. The drinking seemed to be of a reckless, impulsive character, which is only seen in low life in this country. At London and Washington, men who were notably excessive users of spirits drank with reserve and caution, and gave no evidence of intoxication, but at Berlin it was the contrary.

The doctor concludes that the moderate beer and wine-drinker has far less power of control, and is far more likely to be delirious or stupid from excess of spirits than the self-reliant, occasional drinker in America or England. He believes that the American physicians are the most temperate in the world, and exhibit more pride of character and personal respect at banquets, where there is a general unbending of social restraints.

To this we would add, that in our opinion it is always a sad reflection on the manhood of the medical man, who, after a protracted study abroad, brings home with him foreign customs of moderate use of wine and spirits. It implies a degree of ignorance and parrot-like imitation that becomes more and more apparent every year. The physician, of all others, should be the last one to use spirits in moderation or excess. The use of alcohol as a beverage is direct evidence of ignorance of the teachings of modern science and failure to keep up with the growth of medical advance. We believe no facts are sustained by stronger evidence than these.—*Journal of Inebriety*.

ARE THE PROTOZOA IMMORTAL?—Some years ago Weismann made the remarkable claim that protozoans were not subject to the ordinary laws governing animate objects, in that they did not experience death, except through accident. These unicellular organisms reproduce by bipartition, each half becoming a new creature; and as this process is continued indefinitely, there are really no deaths in the protozoan

world, except such as were due to violence. The same thing is true as regards the sexual cells in metazoans. While the somatic cells in time perish, the sexual cells belong to the protozoan type, multiply by fission, pass from generation to generation, through the mediums of the fecundated ovum, and are hence immortal.

Quite recently M. Maupas has attacked this theory, and claimed that natural death, due to senile decay, obtained among the infusoria. In 1860 Balbiani observed that reproduction by fission was limited by the simultaneous death of all the individuals belonging to the same cycle, by the renewal of life through the occurrence of sexual generation, thus beginning a new cycle, or finally by encystment, which causes a temporary interruption of the process of fission.

Now, Maupas shows that no element in the infusoria can live indefinitely and independently. The first visible evidence of degeneration is a reduction in the size, with change of contour. The nucleus is the first to undergo atrophy, and finally disappears. But, as Binet observes, when the vitality of the infusoria has become weakened by a considerable number of organic reproductions, and the animalculæ are upon the point of dying a natural death, a new biological phenomenon can intervene, rejuvenating the organism, and rendering it capable of reproducing itself anew for a long series of generations. That phenomenon is fecundation. And since the substance, the protoplasm, of the rejuvenated individual escapes death, a new argument might be found in these last mentioned facts for the theory of the immortality of infusoria.

The question is at bottom whether the individual, after conjugation, is essentially the same as before conjugation, or whether it constitutes a new animal. In that the solution rests. Now, the new element that the individual acquires by the act of conjugation is the male pronucleus of its partner. In addition, it loses the greater part of its old accessory nucleus and the whole of its old principal nucleus. In return, by way of compensation, it preserves the integrity of its protoplasm and of its other organs. M. Gruber believes the physical identity persists in spite of these modifications. M. Maupas maintains the contrary.

The thesis of Weismann regarding the immortality of infusoria eludes a direct refutation. It is neither confirmed nor overturned by observed facts.—*The Times and Register*.

**MICRO-ORGANISMS IN PLEURITIC EFFUSIONS.**  
In the *Archiv für Exp. Path. und Pharmacol* (xxvii, Hefte 4 und 5) E. Levy publishes the results of bacteriological investigations which he has made on fifty-four cases of pleuritic effusion. Plate and tube cultures were made in addition to the ordinary microscopic examinations. Of these fifty-four cases, thirty-seven were serous and seventeen purulent. Six cases occurred in connection with typhoid fever, of which five were serous and one purulent; nineteen with pneumonia and influenza, ten serous and nine purulent; fourteen were tubercular, thirteen serous and one purulent; acute rheumatism and chronic nephritis contributed one case each; three serous effusions occurred with new growths, and four in cardiac disease, while six others were from other causes. In three cases of serous effusion in the typhoid cases cultivations gave no results, while in the two others the staphylococcus albus was found. In the last named the effusion did not become purulent, but subsided without surgical interference. In the one purulent case in connection with enteric fever the same micro-organism was found, and the case did well after the pus was withdrawn. Of the serous exudations of the second group, pneumonia, etc., in three no organism could be discovered, in one the staphylococcus pyogenes albus alone was present, and in another this organism together with the pneumococcus. In the remaining six cases and in all the purulent effusions the diplococcus was separated. In cultivation experiments with the exudation from the tubercular cases no micro-organisms could be found, but this does not agree with the results published by other authors, in which tubercle bacilli have been found, although the fluid was serous throughout the whole of the case. In four cases of cardiac disease in which the effusion was hemorrhagic the staphylococcus pyogenes albus was found. In all the other cases the results were negative. Levy concludes as follows: (1) The great majority of serous-fibrinous pleu-

ritic effusions contain no micro-organisms. (2) The absence of micro-organisms, when the effusion is purulent, points to the probability of the case being a tubercular one. (3) The presence of the staphylococcus pyogenes in serous effusions in no way indicates that it will become purulent. (4) The discovery of Fränkel's pneumococcus in serous effusions in cases of pneumonia, after the crisis has passed, does not make the prognosis more grave, as it does not increase the probability of the occurrence of an empyema.—*Lancet*.

**MEDICINE AMONG THE MONGOLS.**—In Mongolia the practice of medicine rests chiefly with the priests or Buddhist lamas, whose system is quite elaborate, but based for the most part on superstition. Instead of paying occasional visits to the patient, their method is to reside in his house until recovery or death takes place, or the case is decided to be incurable. The people have great confidence in drugs and medical regimen, including the water-cure, the latter object causing them to resort to springs, both hot and cold, that are somewhat abundant in Mongolia and northern China. They place implicit confidence in the medical knowledge of the foreign missionaries who visit their inhospitable country, but express wonder and astonishment when their proffered recompense is refused by the latter. A very frequent affection among the Mongols is the itch, due in a large degree to their repugnance to the washing of either their persons or garments. In their tents they live so closely together that if one of them gets the itch all soon have it. Various other skin diseases are prevalent among them. Rheumatism is of frequent occurrence, and the remedy largely used for that trouble consists of kneading or a kind of massage; they make use of a "rheumatism stick," a piece of wood so bent that any part of the body can be reached by the patients in their self-application of the kneading process. A peculiar disease called Narry, due to their indulgence in their native spirituous liquor, is frequent; the stomach becoming intolerant of food, so that the patient ultimately dies of starvation. For the bite of a dog they apply to the wound a portion of the fur of the animal; literally, "the hair of the



dog" is their remedy. They use the loadstone in powdered form as a cure for ulcers, deafness, etc. They attribute many diseases to the influence of the planets and constellations, to offenses committed, and to fate. Hygiene or preventive measures do not enter much into their scheme of treatment.—*Press and Circular*.

**INHALERS FOR CHLOROFORM AND METHYLENE.**—The death from methylene, which we recently reported, has called forth various expressions of opinion concerning the methods of using chloroform and its ally methylene. Sir Spencer Wells has consistently advocated the employment of methylene, and has more than once indicated the way in which he believes that substance can be best administered. Methylene, whether it be a true chemical body or diluted chloroform, clearly acts very much as chloroform does, and hence must be watched and used with equal circumspection. By the employment of Junker's inhaler, especially that form recently introduced by Messrs. Krohne and Seseman, a very precise dilution of the anesthetic can be effected. If twenty respirations are taken per minute, and two drams allowed as the quantity used in fifteen minutes, two fifths of a minim will be evaporated for every respiration; but only one half of this is actually inhaled, the rest being blown away during expiration. If six drams last an hour, as Sir Spencer Wells asserts, only three tenths of a minim will, taking the average, be evaporated per respiration. The greatest quantity of the anesthetic is, of course, required to establish initial anesthesia, very small quantities being needed to maintain the patient in that state. So that the larger dose, two fifths of a minim, probably represents approximately the amount of the drug inhaled at the commencement, while the smaller, three tenths of a minim, is taken at the close of the operation. For it is certain that as the layer of chloroform becomes thinner and thinner by evaporation, the quantity of vapor taken up by the air blown through it becomes less and less. The use of a flannel mask, by insuring full and free expiration, certainly enhances the value of the inhaler by increasing its safety. The fact should never be lost sight of that many of the

dangers ascribed to chloroform and its congeners are in fact due to the imperfections of the methods used in their exhibition.—*London Lancet*.

I AM requested by the Hon. Secretaries of the Committee of Organization of the Seventh International Congress of Hygiene and Demography to call attention to the fact that this Congress will be held in London during the week beginning August 10, 1891.

The governments of all countries and municipalities, and all public health authorities, universities, colleges, and societies occupied in the study of the sciences more or less immediately connected with hygiene are invited to co-operate and appoint delegates to represent them at the Congress. The Prince of Wales will preside.

A committee of organization has been formed, of which Sir Douglas Galton is Chairman, and Prof. W. H. Corfield and Mr. Shirley F. Murphy are Honorary Secretaries. An exhibition of articles of hygienic interest will be held in connection with the Congress. The last of these Congresses was held in Vienna in 1887, and was attended by over 2,000 persons, and it is expected that the London meeting will be one of great magnitude and importance.

JOHN S. BILLINGS, M. D.,  
Member of International Permanent Committee

**POINTS IN THE DIAGNOSIS OF GASTRIC DISORDERS.**—Professor Ewald, says the British Medical Journal, in examining the condition of the esophagus, attaches great importance to the sounds heard with the stethoscope placed on the pit of the stomach. The sounds which accompany and follow the act of swallowing are normally two, viz., the first, *spritz-geräusch* (syringe gurgle); and the second, or *luft-geräusch* (air gurgle). The first has no diagnostic value, and is often absent in cases of hysteria, etc. The second is of great significance, and when present denotes a normal contraction of the walls of the esophagus. The absence of the sound signifies a stricture or obstruction of the middle or lower third of the esophagus. The best tests for free hydrochloric acid are tropeolin and Günzberg's reagent phloroglucin vanillin. The routine examination of the contents

of the stomach to determine the amount of acid present is carried out as follows: 10 cubic centimeters of stomach contents are taken, and two drops of phenolphthalein added thereto in a saucer. To this a standard one-per-cent salt solution is added drop by drop from a graduated tube till the color changes to red. The percentage of acid present is determined by the amount of salt solution added, the normal acidity being between forty and sixty cubic centimeters of this graduated cube. The absorptive power of the stomach is determined by giving iodide potassium internally. This should be found in the saliva in from fifteen to twenty minutes. To ascertain the motor power of the viscus, a capsule of salol (one gram) is given, and the urine tested with perchloride of iron for salicylates. Another less convenient method is to give a definite quantity of oil by the mouth, and after a given interval remove the contents of the stomach and ascertain the quantity of oil still present.

SIR MORELL MACKENZIE objects to large hospitals, on the ground that they are an unscientific anachronism; the aggregation of the sick in large numbers being as much out of place as intramural interment. The added virulence of germs from the bodies of numerous cases is to be considered more dangerous than that of those emanating from dead bodies.

Another objection to the large hospital is that the relief given by it is in a sense indiscriminate. The out-patient department of hospitals is the greatest pauperizing agency now existent. From this comes the third objection, the cruel hardships entailed upon the medical men in the neighborhood. He considers the special hospital in a large degree free from these and other objections, and favors the exaction of a small fee from dispensary patients.

While this would not in any degree relieve the neighboring practitioners, or obviate any of the above objections, as the fee must perforce be a level one and within the means of the poorest, it would greatly benefit the hospital exchequer. It may be safely said that in our goodly city of brotherly hatred there are none too poor to afford an occasional glass of

beer. If a charge of five cents were made for every prescription filled, the aggregate would constitute a handsome sum. If the fee required were larger, there would be serious diminution in the number of patients applying, unless all the large clinics were to unite in making a uniform charge.—*Times and Register*.

**TREATMENT OF OVARIAN CYST WITH THE INDUCED CURRENT.**—Noeggerath (*Centralblatt für Gynäkologie*, September, 1890) gives an account of six cases in which absorption of ovarian growths was produced by the application of the Faradic current.

The basis of this treatment is expressed in the following sentences: The current employed has the character of quantity; that is, the induced power is strong, as is generally found in the best apparatus. The negative pole of the secondary current is introduced into the vagina mounted on an insulated handle and covered with a wet sponge, while the positive pole is connected with a large plate electrode covered with moist sponge and placed over the abdomen. The current should only be strong enough to be perceived by the patient. Each *séance* should last from one half to one hour, and be repeated about three times each week.

In one case presenting adhesions, the current was broken at intervals of one second, in the hope of obtaining more energetic action, and in this way to reach the larger growths. Treatment should be continued from six to eight weeks. The most favorable cases are those presenting mono- or multilocular cysts (myxadenoma) of medium size. In this class of cases the results are much more radical than in the use of the constant current in fibromata, as the tumors disappear completely. Of course it has no effect upon malignant growths.

**TOMATOES AND CANCER.**—Why or wherefore, it is impossible to say, but in some unaccountable fashion the impression has come largely to prevail among the public that tomatoes are a cause of cancer, and that for this reason the delightful vegetable in question must be eschewed. The only connection that we know of between cancer and tomatoes is that within past years there has been a large aug-



mentation in the death rate from cancer, and an enormous increase in the consumption of tomatoes.—*Medical Press*.

[The real reason for the above statement is that some years ago some myopic investigator claimed that he found in tomato juice a cell that looked like cancer cell. He was fool enough to give it as his opinion that therefore cancer was caused by eating tomatoes.]

WARM SUBLIMATE SOLUTIONS.—Dr. Ahl has found, on the ground of numerous bacteriological and clinical experiments, that an application of heat to sublimate solutions increases their antiseptic powers, and at the same time diminishes their poisonous and corrosive effects. His conclusions are as follows: 1. The antiseptic action of a solution is increased by heating it above 40° C. (2) A solution of 1-20,000 or even 1-10,000, heated to 40° C., may be used without danger in penetrating wounds of the lung, pleura, or peritoneum. The bactericidal effect corresponds to that of a 1-500 cold solution. (3) A solution heated to above 40° C. stimulates the formative properties of the tissues and accelerates the healing process. On the other hand, a cold solution of 1-1,000 has less antiseptic action than a warm solution of 1-10,000, because the latter penetrates more deeply. (4) The cut surfaces unite more rapidly than when a cold solution of 1-500 has been employed, because of the absence of caustic effects. (5) Warm and weak sublimate solutions may be used with perfect safety as regards poisonous and toxic effects.—*Internat. Pharmac. General-Anz.*

HONORS TO PROFESSOR KOCH.—The German Emperor has conferred on Professor Koch the Grand Cross of the Red Eagle, in recognition of the value of his important discovery. The insignia were handed to the Professor by the Emperor personally. This is the first time since its bestowal on Von Humboldt that a German scientist has received the above honor. Professor Koch has also been presented with the freedom of the city of Berlin, an honor shared by only three other distinguished men, namely, Prince Bismarck, Count von Moltke, and Dr. Schliemann.

VISITING LISTS AND ACCOUNT BOOKS.—We received too late for notice in our last issue The Physician's Hand-book for 1891, edited by Albert D. Elmer, M. D., and published by G. P. Putnam's Sons, New York. Of this marvel of devices to suit the needs of the practitioner, the simple notice that it is still at the service of the profession is probably sufficient. The doctor who has once used it knows well its value. For such as have not seen it we call attention to the fact that in addition to a valuable collection of facts, therapeutic, clinical, pathological, and toxicological, condensed for the physician's convenience in emergency, it contains such rulings, spacings, and headings as will enable him to use it as a record of work, a diary for engagements, a case-book, ledger, and cash-book. And all this is pressed into a space so small that the book may be carried without inconvenience in the pocket.

THE Weekly Medical Review Visiting List, published by J. H. Chambers & Co., St. Louis, Mo., came also too late for notice in our last issue. It is a neat, substantial, well-arranged list, with a good supply of reading matter, and the usual spacings for physicians' visiting records and special memoranda. Its price is only one dollar. The publishers will mail it on receipt of price to any address.

ANOTHER candidate for favor is the Physician's All Requisite Account Book, invented by Dr. William A. Seibert, and published by F. A. Davis, of Philadelphia. In our opinion this is the best account book for the practical physician ever devised. He has simply to enter, under proper headings, his daily list of patients, whereupon at the end of the year he will find that his accounts are posted as well as they could have been by the most expert book-keeper.

We propose to consign our accounts to it for 1891, and advise our professional friends to do likewise.

AUNT EDITH WILSON, of Providence, Kentucky, is said to be one hundred and thirty-three years old.

# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### THE INITIAL LESION.\*

BY E. R. PALMER, M.D.—

*Professor of Physiology and Pathological Histology, University of Louisville.*

I desire to present to your consideration to-night a question of great practical interest to every member of the profession, namely, the management of the initial lesion. It is perhaps well in beginning to state the present status of lesion classification, there having been some rather radical changes of views on this subject in the last fifteen years. In 1852 Bassereau promulgated the doctrine of duality. It seemed to clear away much obscurity in the matter of diagnosis, and to both explain hitherto inexplicable phenomena and simplify treatment. The terms chancreoid, chancre, and mixed chancre seemed to have taken permanent places in nomenclature. I well remember the masterly exposition of the views of Bassereau and of Ricord which I heard enunciated by our eminent president in a series of clinical lectures delivered at the University shortly after the close of the civil war. It was rank heresy then to be other than a dualist. It should hardly cause surprise in these days of pathological iconoclasticism for the dualistic doctrine to be relegated to the dusty back shelves of history.

In the discussion, about six years ago, of a paper by Dr. Sturgis, of New York, on the non-specificity of chancreoid pus, the non-existence of the so-called chancreoid virus, it appeared that priority in this view belongs to Bumstead and Taylor. In his most recent work

on venereal diseases Dr. Taylor says in this connection, "Slowly and surely have facts accumulated, so that to-day among progressive syphilographers the view that the chancreoid ulcer is due to a distinct virus is generally given up." Elsewhere in the same article he says: "While the chancreoid may be and very commonly is derived from a previous chancreoid, a chancreoid bubo, or a chancreoid lymphangitis, it also may originate in the pus derived from irritated lesions of syphilis and from irritated simple lesions in syphilitic subjects and in simple pus, particularly when originating in active or intensely irritated lesions."

In contrast with this view is the following, quoted by Taylor, which he terms (and I agree with him) "the false doctrine": "Chancreoid is an affection perpetuated only by contagion. Sexual intercourse is not essential. Whenever upon the human body a chancreoid is found there has been deposited pus from another chancreoid under conditions favorable to its absorption. No amount of sexual excess, no degree of uncleanness, no irritation, traumatic or chemical, however prolonged, no simple or poisonous ulceration from other specific sources (syphilis, cancer, glanders, etc.)—nothing, in short, can produce chancreoids except chancreoid (chancreoid bubo included). So that, as Fournier puts it, if all patients in the world with chancreoid would avoid contact with others until their malady got well, the disease would cease from off the face of the earth."

The inoculability of true pus with its staphylococci and streptococci, and the varying virility of inflammatory pus in different states and at different times, is now a matter of common consent. The fact that there is no superadded specific germ to account for the virility of chancreoid and chancreoid bubo is much more than a mere matter of pathological interest. Its

\* Louisville Surgical Society. Read Jan. 12, 1891. (See p. 38.)



practical bearing is of the highest importance, putting this disease as it does out-side the pale of strictly venereal troubles, and widening its etiological possibilities indefinitely. With two cases in illustration I shall leave this part of my subject in your hands.

Case 1 is that of a young man of splendid physique and perfect health, who, while on a spree with a fellow youth, picked up at night two street walkers of apparently the better class. The night was a hot one in midsummer. They rode all night in a low-necked hack, all four drinking freely, and indulging by pairs in sexual dalliance without any opportunity for washing or other precaution. In forty-eight hours the youth referred to presented to me with furious chancroids clustered about the corona and threatening extensive destruction. It so happened that my patient had finally taken his girl home, so that at my suggestion he was able to interview her. She protested her soundness, but said she had been sick recently, and referred him to her doctor, who is of merited prominence in the city. Here it was learned that the girl was entirely free from venereal taint, but that she had quite recently undergone criminal abortion and had fallen afterward into this doctor's hands on account of uterine hemorrhage, which, being obstinate, had led to local treatment that had culminated *the day of the escapade* in thorough curetting of the interior of the uterus and the free application of chromic acid, fragments of fetid placenta and broken down endometrium being freely brought away from the womb and not fully cleansed from the vagina.

Case 2 is now under treatment, a middle-aged family man with waning sexual powers, an old friend who would make no concealments in his consultations with me. He presented November 2<sup>nd</sup>. He had had no venereal experience, but some weeks before had noticed a small pustule on the shaft of the penis, half way back, evidently from description a suppurating sebaceous follicle, and had opened it with a needle, squeezed it, and applied burnt alum. At the time of his first office call it was nearly the size of a silver quarter, with inflamed edges and ugly grayish sloughing surface. As the case has been under treatment for some seven

weeks, and is now for the first time healing rapidly, its obstinacy is evident; and I may say that while no history of syphilis was given I deemed it best, on general principles, to put him on mixed treatment, the mercury largely for purgation, the iodide for its alterative action. An angry boil appeared by the side of the nose, and quite a copious crop of pustules appeared over the face elsewhere, with coincident marked improvement in the sore.

So far as the syphilitic lesion, the chancre, is concerned, I shall not long detain you. That there is a bacillus, whether it be that of Lustgarten or not, that is, that this disease is *ab initio* and always a specific disease, is not denied by any one; that induration is the rule, but not invariable; that a history of incubation, when obtainable, is our best diagnostic means; that the percentage of doubtful sores, even with the most skilled, is large, and that pus from an inflamed chancre may produce chancroid, and not necessarily syphilis, are among the accepted facts of syphilography. Of all these, unquestionably the most important to be borne in mind is the frequent difficulty, not to say impossibility of positive diagnosis, as it is here that a mistake of a serious nature is so commonly made by the general practitioner—a mistake that often can never be corrected, and not infrequently leads up to incurable tertiary lesions later in the life of the patient. If the profession could be taught that, even where the diagnosis is unmistakable, constitutional treatment should not be begun until general symptoms manifest, the matter would be settled. Even here, however, the clamor of the patient for medicine would offer frequent obstacles to such a course. But the trouble is deeper, more general. It seems to be an almost universal plan, especially with our rural brethren, to paraphrase that famous rule of Hoyle's, and in case of doubt dose the patient. Every doctor who has examined much for life insurance has met with numerous exemplifications of this fact: "Have you ever had syphilis?" "Yes, years ago." And then the old story—a sore; "mercury and potash" for two or three months, perhaps longer; no lesion except the primary sore; no evidences now.

But to the subject proper of my paper—the

management of lesions. How shall we treat chancroid, which, bear in mind, must necessarily include a serious percentage of doubtful sores? If I may begin with a "don't," I will say, *don't cauterize*; and by this I would include all such destructive agents as nitric acid, nitrate of mercury, etc. Where the sores are multiple and superficial much simpler means are all sufficient, such as cleansing thoroughly with peroxide of hydrogen, followed by a 1-2,000 bichloride douche, and finally one of the many antiseptic dressings in vogue; this operation to be repeated once or twice daily until healthy granulating sores free of pus, and that will heal under simple protection, are all that remain. Of the dressings to apply after the douche, iodoform of course ranks first, applied in powder. Never, if it can be helped, apply a salve to any local lesion of the penis. Next to iodoform, and pushing it close for first place, is salol. Neater and not so malodorous, it is deserving, for the good it does, of wider use. Bichloride solutions on gauze, boric acid in solution the same way or in powder, these are my favorites. As dressings for mild forms of the disease, iodol, aristol, and several other new candidates for fame have generally failed of good in my hands.

In cases somewhat more severe than this first group I find one or two applications of the boro-bromole of Rademaker will usually set up healthy action. Many of us remember the once popularity of bromine in such cases, and the prominence given to it in this city during the war by the late Middleton Goldsmith. The bromole of Rademaker is composed of bromine 72.5, phenol 27.5 parts in 100. At my suggestion a mixture of twenty five parts bromole and seventy-five of boric acid is made by him. It causes slight pain and develops the bromine odor. It should be applied for from a few hours to twenty-four, and then washed away to give place to milder medicaments.

Finally, in the severer forms of suppurating venereal ulcer comes the question of radical measures. Enucleation by circumcision, partial or complete, under cocaine and full antiseptics, I have already shown to be safe and sure. A less extreme measure is that of curetting. This is an exceedingly popular method

with advanced syphilologists. The ulcer is first washed with peroxide, then with bichloride, and then cocainized with strong solution applied on absorbent cotton. The curetting, which should be thorough, is thus rendered painless. A final washing follows, and then the sore, dressed with iodoform and sealed with an artificial scab, will usually be found to heal without further interference. Corrosive acids, with their vicious pain, their failures, and their subsequent misleading indurations, are a thing of the past.

The treatment of the chancre may be embodied in a few words. Enucleation, where practicable, will facilitate local healing, but will not prevent constitutional infection. Irritants and meddlesome surgery are always to be avoided, lest to the painless and cleanly button a pus sore, a chancroid, with all of its disagreeable and painful possibilities, be superadded. It is here that the question of specific treatment of the local lesion, now being much discussed, whether it be the chancre, adenopathy, papules, or gumma, by either inunction or hypodermic medication, comes up. So far as the latter is concerned, I have had no experience, but with local dressings of mercury, and especially solutions of the bichloride or the black wash mixture, I am much pleased. Iodoform or boro-bromole are not called for, but salol does excellent service, though at best we can expect to do little more than see that the chancre remains a chancre only, until with advancing weeks it disappears as the cutaneous syphilides appear. Where it is rendered possible by location, enucleation is safe and certain, immediate union of the edges of the cut taking place under simple antiseptic dressing.

LOUISVILLE.

## THE PROGRESS OF GYNECOLOGY DURING THE YEAR 1890.\*

BY W. SYMINGTON BROWN, M. D.

*President of the Gynecological Society of Boston.*

Our third by-law requires that the retiring president shall deliver an address upon the progress in gynecology during the previous year; a law, by the way, which, since my con-

\* Read on January 8, 1891.

nection with the Society, has been rarely attended to. On the present occasion I propose to discuss very briefly a few recent suggestions by prominent gynecologists, principally relating to menstruation.

Dr. E. C. Gehrung, of St. Louis, read a paper before the American Gynecological Society, at its meeting in Boston, September 1889, on arrest of menstruation. He seems to think that sanguineous menstruation is an abnormal process, an inherited disease, eventually destined to be got rid of through the process of evolution. He says that "menstruation is not necessarily sanguineous." The practical part of the paper consists in a proposal to arrest menstruation in all cases where the loss of blood might prove injurious to the patient. Dr. Gehrung asserts "that bloody menstruation, whether profuse or scanty, may be safely repressed (preferably by the vaginal tampon) whenever the individual can not or should not spare the blood thus wasted; and that great benefits may be derived from this restriction in otherwise incurable or partly curable cases." He has practiced this method successfully for several years. The vagina is thoroughly tamponed with absorbent cotton, a new tampon being inserted every forty-eight or sixty hours. Another member of the Society remarked that he also had employed the method with great success.

Dr. Johnstone, of Danville, Ky., strenuously objected both to the theory and the treatment. He believes that menstruation results from the erect posture, as proved by the fact that it occurs in the higher apes who stand nearly erect most of the time while awake. Quadrupeds possess a rich plexus of lymph vessels connected with the womb; whereas the human uterus is almost destitute of such vessels. The proposed treatment did not seem to meet with much favor by those present at the meeting.

Dr. A. W. Parsons, Northampton, Mass., proposes to do away with napkins during menstruation, and substitute a loose antiseptic roll of cotton through a glass speculum as soon as premonitory symptoms appear. This is to be removed when nearly saturated, and another roll inserted. I presume that the woman herself will perform the process. Dr. Parsons claims

that this tampon will support the congested uterus, and that the method is more cleanly. I do not think that this suggestion has been generally adopted, and I do not expect that it will be much practiced. One serious objection is, that the roll of cotton necessarily keeps the vaginal walls apart, which naturally are in contact. Judging from my own experience, it is a very difficult thing to induce patients to insert a tampon themselves, even when it is needed to prevent prolapsus uteri. Most of them prefer to wear a pessary of hard rubber, which does not need to be removed for weeks or months. If employed as a substitute for the napkin, the roll should be made of white wool with a thin covering of absorbent cotton, and a string attached to facilitate its removal.

Dr. H. P. C. Wilson, of Baltimore, recommends the performance of laparotomy during menstruation. He refers to the paper of Dr. H. R. Storer, read at the first meeting of the American Gynecological Society, in 1876,\* in which Dr. Storer concludes "that for pelvic operations, all things being equal, it is better to select the week immediately following the cessation of the catamenia." Dr. Wilson differs from this conclusion. He says: "For laparotomies involving the pelvic organs, my experience teaches me to select the uterine flood rather than the uterine ebb." This is the opinion of a talented surgeon who has had abundant opportunities to test it, and who is well known for conservative tendencies, and I think that the majority of operators now agree with him.

The question so warmly discussed during the last decade, Whether menstruation depends on ovulation or proceeds from some other cause, has had some light thrown on it by an interesting case recently reported in the *British Medical Journal* (Sept. 27, 1890) by Dr. J. A. Robertson.

The woman was twenty-three years of age. She commenced to menstruate before she was fourteen years old, and continued to do so regularly for six years. During the next three years the flow became scanty and the periods irregular, until September, 1887, when it stopped en-

\* Dr. Storer's paper does not appear in the Society's transactions. It was afterward published in the *Edinburgh Medical Journal*.



tirely. Pain in the region of both ovaries, extending to the top of the sacrum, kept constantly increasing. For several months she spat up blood every day.

Both ovaries were removed on January 29, 1889, and the patient made a good recovery. The vicarious spitting up of blood stopped; she began to menstruate during the following April, and continued to do so regularly until October. She was married in June, and was delivered of a large boy, August 13, 1890. The labor was a protracted one; forceps were used, and the child was still-born.

Dr. Robertson says: "I was not aware of leaving any ovarian tissue. Indeed, my aim was to extirpate the ovaries thoroughly, and I thought I had done so. I suspect, however, that a small portion of healthy ovarian tissue had reached up to or beyond the hilus of the right ovary, and that this may have taken on regular ovarian functions. This, of course, is merely conjecture." It is evident that a portion of one ovary must have been left, or, as sometimes occurs, supplementary ovarian tissue existed elsewhere within reach of a fallopian tube. The fact that impregnation occurred weakens the argument that menstruation is always independent of ovulation.

Dr. H. C. Coe has an excellent paper in the Medical Record for August 9, 1890, on the dangers attendant upon artificial prolapsus uteri. These are, (1) overstretching of the ligaments; (2) tearing of the adhesions; (3) starting inflammation; and (4) causing an abscess to burst internally. I have no doubt that the rude way in which the womb is often brought down to the vulvar orifice occasionally causes one or more of these mishaps. We are rather too much disposed to copy the doings of certain German hospital surgeons, who operate on a class of women widely different in constitution from the great bulk of our American women. While I do not say that artificial prolapsus should never be produced, I think that the seldomer it is had recourse to the better it will be for our patients.

Normally, the uterus is the most movable organ in the body. Practitioners sometimes forget this fact, and try to fix an organ, by a pessary or otherwise, which Nature evidently in-

tended should be allowed a good deal of freedom. And the practice of gynecology itself seems to change its position after a similar fashion as the uterus does. No specialty I have heard of is as much subject to fashionable follies as ours is, almost keeping pace with the semi-annual revolutions in dress which Monsieur Worth and other potentates inaugurate. But I need not waste your time by proving an assertion which I scarcely expect will be disputed.

Before closing, allow me to call your attention to a few suggestions. I believe that our section of the profession displays a kinder inclination to look after constitutional remedies than formerly. Our talented fellow-workers, Dr. Henry M. Field, and the late Dr. Warner, did much to bring about this result. I hope to see some of the younger members direct a portion of their zeal in the same direction, for the constitutional field is far from being thoroughly gleaned.

Some progress has also been made in recording the after-effects of surgical operations. Sir Spencer Wells started this reform, and has spent more time and money in perfecting it than any other surgeon. I hope that all our members will strive to imitate his illustrious example. One of the most recent discoveries in this field is, that a mild melancholia, generally of brief duration, is apt to follow surgical operations on the female genital organs. I have seen one case lately, and several others have been reported to me.

Only one death of an active member has occurred during the past year, Dr. M. D. Church. Several members have resigned, but at least an equal number have joined our Society in 1890. I am glad to see that a majority of the new members are young men, full of energy, believers in the virtues of cleanliness (if not of corrosive sublimate), some of whom will probably leave names behind them which the medical "world will not willingly let die."

If I might venture to give a hint to men much better qualified than myself, it would be this, let us cultivate an *esprit du corps*. We are members of the oldest gynecological society in the world, not in itself a slight honor. Let us make up our minds to stand by one another

let us take a brotherly interest in each other's success by mutual consultations and social intercourse, subject, of course, to the welfare of our patients, which is the fundamental doctrine in every decent surgeon's creed; and when the time comes for each of us to render an account of his stewardship—a time which comes every day—he or she will not be embarrassed by the reflection that “it is more blessed to give than to receive.”

STONHAM, MASS.

## Societies.

### LOUISVILLE SURGICAL SOCIETY.

Stated Meeting January 12, 1891, Vice-President  
E. R. Palmer, M. D., in the chair.

Dr. Palmer reported two cases. Case 1 was a middle-aged man who had intense pain in the right side of the neck and face, with marked difference in the pulses of the two sides. Diagnosis, subclavian aneurism. The speaker showed a photo of the patient which clearly brought out deformity on the affected side. The second case was in the person of a woman who had been treated for syphilis eight years before. She had a small, hard tumor in right subclavian region. There was no pain, no pulsation, no disparity of radial pulse. Diagnosed syphilitic gumma. The patient was discharged, but returned in a few weeks. The voice was husky, and the tumor was found to be much enlarged. Palpation showed fluctuation. Aspiration from above got pus. The tumor was cut open, but no more pus escaped. It then became evident that the tumor was melanotic cancer. The patient has pain in the region of the liver. In both the cases there was a history of syphilis. A photo of this patient was also shown.

Dr. Bloom had read an article in a German journal on the occurrence of cancer on syphilitic scars. He asked if it could be established that this cancer developed from such a scar.

Dr. Bloom reported a case of hyperidrosis. He referred to the successful use of diachylon ointment by Hebra in the treatment of hyperidrosis. He had read accounts of an antiseptic treatment in this trouble, and had himself used pulv. boracic acid with success in severe cases. This would seem to indicate that the affection

is of microbial origin. He had not come to any definite conclusion as to its nature.

Dr. Vance: “Is it a fact that all diabetic patients have this disease?”

Dr. Bloom: “I think not.”

Dr. E. R. Palmer read the essay of the evening; subject, “The Initial Lesion.” (See p. 33.)

Dr. Vance: “Did the two young men have intercourse with the girls indiscriminately?”

Dr. Palmer: No. In 1876 Bumstead said there was no specific virus for chancroid; that inflammatory pus from other sources than venereal might produce chancroid.

Dr. W. O. Roberts: I am inclined to agree with Keyes. I must believe that chancroidal pus contains the virus that produces chancroid. One thing is true here, enlarged glands following chancroids always suppurate. This is not true of those incident upon other sores.

In chancre, when one is certain of diagnosis, I believe in beginning treatment at once. As we can not diagnose at once many of these sores, we must often wait.

Dr. J. M. Mathews had discussed this subject twelve years ago as applied to syphilis of the gut. Mason took the position that chancrous pus might pass from the external genitals to the rectum. This might occur in females, but not in males. I believe that strictures are the result of the deposit of gummae. I wish it were possible always to diagnose these sores. This is very important, since the happiness of families often depends upon it. General practitioners are somewhat reckless in the management of sores on the penis. The speaker reported a case. A gentleman had a primary sore. It was treated and got well. He went to Hot Springs, where he was told that he did not have syphilis. He now comes to me with the rectum blocked with syphilitic gumma. He will die of syphilis. Because I gave this opinion he deserted me. If this man had been treated correctly at first he would doubtless have escaped the rectal complication and dire consequences.

Dr. Vance can not believe that the destructive venereal sores we see are developed from simple sores, leucorrhoea, etc. He thinks there must be a specific poison for chancroid.

Dr. A. M. Cartledge: I believe in the spe-

cific nature of chancroidal virus, (a) because of the physical characteristics of the lesion and the distinct period of incubation; (b) because of the accompanying glandular suppuration. It is as plausible that there is a specific poison for chancroid as for chancre. I believe in immediate constitutional treatment where the diagnosis is believed to be correct. By treatment we can modify and in some cases prevent the secondary symptoms. I believe in cauterization and antiseptic treatment in chancroids.

Dr. Turner Anderson believes, of course, in duality. It is not possible in many cases to make a differential diagnosis.

Dr. W. L. Rodman believes in the specificity of chancroidal virus, and thinks these sores should be vigorously treated with caustics. He thinks that when a man has a hard sore he has just as much syphilis then as he ever will have, and that he ought to begin treatment at once.

Dr. Bloom agreed with the essayist in every point. The difference between sores was demonstrated by Weir. A "hard sore" may be soft, and a "soft sore" may be hard. The induration depends on the site of the lesion. Where the lymph spaces and glands are wide, there the sore is hard. We seldom or never see a hard sore on real mucous surfaces. The so-called mucous membrane of the prepuce and glans penis is transitional. In woman it is rare to find a hard sore on any part of her genital organs except the cervix uteri. Incubation as a means of diagnosis helps, but is often unreliable. In the majority of cases the diagnosis can not be made between the hard and soft sores. The exception is an indurated nodule without ulceration. This I consider true Hunterian chancre. I regard the specificity of chancroidal virus as still *sub judice*. A bubo from other causes can not be distinguished from chancroidal bubo. A specific germ may produce mild and severe results. Clinically I have seen little difference between gonorrheal and chancroidal bubo. There are mild chancroids and balanoposthites. Think there is more to sustain Taylor's view than Keyes'. To the use of caustics I am opposed. I disinfect with bichloride, then rub the sore until it bleeds, then apply iodoform. To the use of caustics we owe

more mistakes and more disastrous results than to any thing else. The mistake is disastrous whatever be the case. I don't know that I get better results by milder measures, but then I am more certain as to what I am doing. The time of treatment must depend upon the certainty or uncertainty of diagnosis. It is the custom with many to wait until secondary symptoms appear. This is defended on the ground that by early treatment the secondary symptoms are masked. Excision is an important question. Bumstead states that in seven cases of excision he had two cases of success. He excises the sore and the indurated glands also. Authorities differ widely as to the results of excision. We must wait.

The time being exhausted, Dr. Palmer did not comment upon the discussion further than to ask why the gentleman gave mercury in the initial lesion if it is poisonous to give it before the syphilis is developed. "I stand by the points made in the paper."

JOHN G. CECIL, M. D.,

Secretary pro tem.

#### ALLEGHANY COUNTY MEDICAL SOCIETY.

Special Meeting, December 16, 1890, W. S. Foster, M. D., President, in the chair.

*Albuminuria after Typhoid Fever.* Dr. Batten: A girl eleven years of age convalesced and became apparently well, September 9th, after a malignant attack of typhoid fever. On October 24th she had a shuffling walk and depression of the left shoulder. She also had pain in the abdomen. The following morning I visited her and concluded that the depression of the left shoulder was from irritation of the spine. Upon examination of the urine I found that it was highly charged with albumen, and there were no symptoms of paralysis except the depression of the left shoulder. She had use of her left leg and arm, but did not use them as well as she did the right. I put her to bed, cupped her over the back, and applied poultices over the abdomen, and put her on nitro-glycerin. She did not appear to improve under this treatment, and I changed it to iodide of potash in doses of five grains every three hours. Under this treatment the albumen diminished and finally disappeared, and the shoul-



der took its normal position. On November 30th I discharged her, well. It is the first case of albuminuria I have had following typhoid fever.

*Fracture of the Radius.* Dr. Murdoch: My attention has been called to an article in the Medical News, a paper by Dr. Roberts, of Philadelphia, which was read before the Academy of Surgery two weeks ago. The title of the paper is The Uselessness of Splints in the Treatment of Fractures of the Lower End of the Radius. The paper itself is interesting, and the discussion which it elicited also, and as there were many points made by Dr. Roberts which I heartily approve of and which differ from those usually received by the profession, I think it interesting to revive the old hackneyed subject of fractures of the lower end of the radius. There is no fracture that has been more discussed, there are points not yet settled, and difference of opinion among good surgeons. It is comparatively a few years since this fracture at the lower end of the radius was thought to be a dislocation, and was so regarded by all surgeons not one hundred years ago, and always described as a dislocation. Some surgeons contend that the fracture is always caused by cross strain in hyperextension of the wrist. But so good a surgeon as Dr. Stimson, of New York, argues that it never occurs in that way; that it is generally the result of a compressing force, the shaft of the radius being driven into the fragment of the bone by a downward force. He asserts that in the living body the strain can not be in such a way as to produce this fracture. The fracture, as you know, occurs about half an inch above the lower extremity of the joint, from three eighths to three fourths of an inch from the lower extremity of the radius, and the fragment is driven upward and backward upon the shaft, and described by all surgeons as the silver-fork fracture. The fragment is driven upon the shaft. The reason so much difference of opinion exists is owing to the fact that different surgeons see cases of this fracture produced by different degrees of violence. As we usually see the fracture, it occurs in old ladies slipping and falling and receiving the weight of the body upon the bones, and the radius gives way by a slight amount of

violence; these are the most common cases. But surgeons like Dr. Moore, of Rochester, who have made *post-mortem* examinations of patients with fractures of the radius give an entirely different account of it. Dr. Moore relates the case of a patient who fell from a third story window in a lunatic asylum, head foremost, striking on both arms; there was a fracture of the lower end of the radius and a crushing of the lower fragment, also a dislocation of the ulna. In this case the styloid process of the ulna was entangled in the annular ligament.

In the treatment of this fracture at first the pistol-shaped splints were applied for the purpose of abducting the hand toward the ulnar side, and all the splints for a great many years afterward were of that type. The idea being to draw the hand to the ulnar side, supposing that by that movement the lower fragment would be drawn down into place.

Then again, Gordon, of Dublin, advised a splint by which the hand was flexed, and Dr. Kearns has a splint of his own, the retroflexed splint, and there are still other varieties. Now, here comes a good surgeon who asserts that all these splints are useless. I am inclined to think, looking back upon several of my own cases, that he is practically right. If we recollect how loosely the carpal bones are connected with the radius, and the great amount of motion that the hand normally has in flexion and extension and lateral movements, the idea that one can influence the position of the lower fragment by altering the position of the hand seems absurd. The hand was flexed toward the ulnar side because of the mistaken impression that there was a close connection between the ulna and the cuneiform bone, and that by pulling the hand in that direction the lower fragment would be pulled into place. Owing to this loose connection between all the carpal bones it is impossible to influence the lower fragment by any position of the hand. This is true whether it is flexed or turned to the radial or ulnar side, or whether you retroflex it after Dr. Kearns. You do not by any of these methods influence the lower fragment, which is only three fourths of an inch long. Besides, if you put pressure enough upon the lower fragment to influence it by any splint, you are

very likely to stop the circulation in the hand. Prof. Hamilton has related five cases of gangrene of the hand by tight splints in this connection. The vessels are so easily compressed that the circulation is readily cut off, and any pressure by splints that would be likely to influence the lower fragment would be likely to arrest the circulation in the hand. The chief deformity after this fracture is the stiffness of the fingers. What is the cause of this stiffness? It is asserted usually to be that the fingers are kept still for so long a time. But this is an error. The stiffness in the fingers and wrist is owing to the inflammation in the joint itself and in the sheaths of the tendons. What is it that causes the inflammation of the joint and in the sheaths? It is no doubt largely due to the proximity of the fracture, but is it not probable that a good deal of it may be caused by this strong pressure made by the splints? The fact is, gentlemen, I have seen, as Dr. Roberts says he has seen, cases where splints were put on without any reduction of the fracture whatever. The idea is too prevalent that a fracture can be treated simply by a splint. A fracture of the radius usually occurs in a transverse direction, and if the fracture is reduced, that is, the fragment put back where it belongs, nine times out of ten it remains there without a splint. I say this is usually the case. This fracture differs from other fractures. Usually we can reduce a fracture easily, the difficulty being its retention. In this fracture the difficulty is in reduction; retention is easy. When reduction is accomplished, all that can be done is done. The fragments fit into each other; there is no muscular action to displace them. Generally speaking, you have done all you can do when you have reduced the fracture. This is so when the case occurs through a minimum amount of violence. In these fractures in the lower end of the radius where the shaft of the bone is driven violently against its lower extremity, and the lower fragment is split and crushed, pulverized as it were, you will not be able with any splint to prevent a deformity. A portion of the bone has been lost. I do not go so far as to say splints are useless. But I assert that, so far as the replacement of the fragments is concerned, the reduction is the

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principal thing to attend to. I have seen within a week a patient come to my office with a Colles' fracture two weeks old, with the fragment out of place as much as it was at the time of the accident, and was able with a good deal of force to reduce it. The man had on a Gordon splint. I have within three months seen five or six cases of this fracture. I believe that the kind of splint is not important. I think it is well to put on some kind of a splint. A fracture so near the joint must necessarily be painful to the patient. I think for comfort and quiet it is well to put on some kind of a splint to abolish motion of the joint, but only for that purpose. If the fracture is reduced it will remain reduced. If the fragment is crushed, then no splint will lessen deformity. I also believe that one of the principal things to be observed in the treatment is, that no dressing shall be put on so tightly as to press upon the sheaths of the tendons, for this contributes to the stiffness in the joints. Passive motion, as I have already said before this Society, I do not believe in. I believe the fracture should be kept quiet until there is some union between the fragments. In the treatment of this fracture the important thing is to reduce it.

Dr. Thomas: I would like the doctor to tell us whether he meets with uniformly good results or poor results. I have seen a number of cases of Colles' fractures, and I must say my results have not been perfect. The doctor states the important thing to do is to reduce the fracture. If you have done that, you have done all that is necessary. Now I take issue with the doctor there. I do not believe the principal thing is to reduce the fracture. The difficulty in the fracture is the question of deformity and the amount of dislocation of the ulna. If I get a case of fracture with dislocation of the ulna, I know I am going to have trouble. If the bone is entangled in the annular ligament, and if I can get that bone reduced, I do not care so much for the fracture. I had a case of that kind within the last three months in a woman about sixty years of age—a dislocation of the ulna—and I thought I was going to have a very good case, and I think I will yet. I do not believe in any special splint. If

you can succeed in reducing the ulna, any kind of splint will keep it in place, and the lighter the better. In this case I applied anterior and posterior splints, and bound very lightly, and only allowed them to remain on the hand ten days. Then I took off one and allowed the other to remain. At the end of four weeks I took off the other splint, and I observed what I did not observe when I dressed the hand, there was much more deformity at the wrist-joint than at the back of the hand. In other words, inflammation had been going on in the coverings of the tendons and the tendons themselves. I expect this is about as good a result as we can generally get in a Colles' fracture. The doctor says the splint produces this inflammation. I believe it is the original injury. I think the trouble in the tendon is altogether from the injuries received at the time. If some one could tell me how to reduce the ulna I would feel that I could treat these cases very well.

Dr. Brashear, of Cleveland: This subject of fracture is always one of much interest to me, and it seems to me we are slow in learning the best and most successful methods of treating this most common fracture. When I began the practice of setting bones, the first splints I used were two splints, cigar-box splints, and when the ulna was not displaced my success was satisfactory. If it was displaced, I suppose my success was about equal to that of my contemporaries. I used, I think, nearly all the splints up to the time when I ceased the use of the splint for a fracture. I have used the splint of Dr. Geo. F. Shrady, of New York, which is a simple one, but it puts the hand in a cramped shape, painfully so. I still have a splint of that kind, and would like to put it in some museum. Then I used the pistol-shaped splint, which I made myself, and I have used the splint of a former member of your society, George McCook, of this city. Perhaps about the year 1868 I ceased using splints for this fracture. I have not used a splint since, and I have no intention of using a splint for Colles' fracture, and will not use one unless I see some splint that will produce better results than the method I employ. The gentleman who introduced this subject spoke of the case Dr. Moore had the opportunity of

studying, that of the patient who fell from a third story window upon both hands and had a double fracture. The *post-mortem* was made very soon after death, and the details of that case were very intelligently written out and published. Shortly after I had occasion to make a *post-mortem* of a fracture. I desired to see whether the short fragment was in relation to the hand, as asserted by Dr. Moore. An old lady fell backward down a step twelve inches high, and in falling put out one hand to save herself, and was picked up dead, carried into the house, and I was sent for. We arranged for a *post-mortem*. I was anxious to see this fracture, because I was then engaged with the dressing of Dr. Moore, and this *post-mortem* demonstrated that the short fragment was turned sidewise. I found it exactly as Dr. Moore said it would be. The study was a very interesting one. I saw the mechanism of the fracture, if the ulna can be replaced, and since I have been following the method of Moore I have not found one which I could not restore. After that is properly restored the rest of the treatment is simple; it is very easy, and no splint is needed. Professor Moore puts a little roller bandage, the diameter of which will not exceed the thickness of the wrist and about an inch wide, on the palmar surface and just back of the wrist-joint, allowing the weight of the hand to make the extension; this is surrounded with a bit of adhesive plaster as wide as the bandage, put on moderately tight. I can not say too much in favor of Dr. Moore's method, and that was published a good many years ago. Why we do not all use it I do not know. I should be very sorry to have a roll-call of my patients treated with the pistol splint. I think that is the worst of all; it is the worst a man can do. Better do nothing.

Dr. Daly: This subject at once calls to my mind the experience I had with our friend Dr. Brashear sixteen or seventeen years ago. I was present when he dressed the fracture in the manner which he has described. I watched the case with considerable interest, and his results, as I remember them, were satisfactory. It is well known to all gentlemen who have treated fractures that you can not lay down any hard, fast rule for all cases. It is true I



have not treated a fractured bone for many years, at least no other fracture than fracture of the nose. But for many years previous to the many years I speak of, I treated a great many when in general practice, and as I recall the cases which I had I have no great sense of pride in my results. I believe that at one time I gave considerable amount of study to Colles' fracture, made some dissections, and the outcome of that study was a paper which I read before the Mott Medical Club. As I remember, the position I took then, if I were engaged in the practice of surgery and treatment of fractures I would probably take now. We, as surgeons and physicians, ought, upon general principles, to combat whatever evil may result from accident or disease. Now, we all know the greatest evil of a fracture is the transferring of the axis of the hand to the radial side. If you will examine a given number of fractures in which there have been bad results, you will find a prominence of the styloid process of ulna, as I say, the transferring or bringing over of the axis of the hand to the radial side. After seeing our friend Dr. Brashear dress this case of fracture, I am not quite sure that I did not call him in consultation with my next case. I can not remember particularly, but I have a general recollection that the cases treated by the method he speaks about were followed by as good results as the cases wherein the method I was so fond of using was employed. This was the method proposed by Dr. Walter, of Pittsburgh. The results in treating Colles' fracture by the Walter splint are usually good. So, to sum up, it is about like this. While Dr. Murdoch very justly says a very important point is to reduce your fracture, that, of course, we know is an important point with all fractures. There is another important point which appeals to every one who has had experience; that is, to use measures as simple as possible to retain your dislocated or relocated bone in apposition, and we who have had experience know that it is not easy to retain the dislocated and relocated bones in proper apposition. The most important point is to retain your bones in apposition. Do not pin your faith too closely to the non-splint treatment, and do not pin your faith too closely

to the splint treatment. I am very much pleased indeed to have had this subject brought up.

Dr. Batten: I am of the opinion of Dr. Murdoch, that if you once reduce the fracture properly it makes little difference what sort of a splint you use. I have used all kinds of splints; I have made splints of my own, pistol shingles with roller bandage on the ends, and had good results with them. But I have always been very particular to reduce the fracture properly. The first time my notice was drawn to Dr. Moore's treatment with a simple plaster the patient was under the care of Dr. Brashear, and I do not know whether it was the same patient Dr. Daly speaks of, but my recollection is that it was. I believe that some patients are more susceptible of inflammation than others. I have treated cases that would have no difficulty with inflammation, and then again others where there was great trouble. The last case I treated was a woman about forty years old. She gave me a great deal of trouble for about six months, but at the end of that time her arm became very useful and there was not any deformity.

Dr. McCann: This subject will always be a source of discussion. There are cases which will recover without deformity, and others which will not. The fractures in the vicinity of the wrist-joint are really three. First, Barton's fracture, which simply consists of a sliding off of the portion of the radius directly into the joint—a fracture which, although Barton saw and described, he never saw the pathological condition of; it was afterward seen by other persons. Another fracture is the fracture which occurs from a half to three fourths of an inch above the wrist-joint; and there is still another fracture, Robert Smith's fracture, an inch and a half above the wrist-joint. These fractures are very commonly described or classified together, but anybody who will take the trouble to look at the anatomical construction of the parts will readily see that there must be a very great difference in the treatment and in the results of that treatment. In the first place, you have a fracture involving the wrist-joint very often with rupture of the annular ligament, and consequently a fracture which, unless

carefully reduced, must necessarily be followed by deformity. Now, that is not so likely to occur with the fractures three fourths of an inch above the wrist-joint which do not involve the joint at all, although they may be attended by displacement. In Smith's fracture, an inch and a half above the joint, these conditions are not likely to be present; consequently in the cases which are treated as Colles' fracture, which are really Smith's fracture, the results must necessarily, with any kind of careful treatment, be good. With Colles' fracture the results ought to be good if carefully treated. With Barton's fracture, involving the joint with displacement of the ulna and comminution of the fragment, we have conditions which are likely to be followed by deformity, no matter what method of treatment is used. Now, I have treated a few of these cases. When I have a fracture in the vicinity of the wrist-joint the first thing I do is to reduce the fracture if I can. If you have them there, it is not very difficult to retain them. The old practice initiated by Sayer in the treatment of all fractures consisted in extension and retention, no matter what apparatus you used, so it accomplished the object. Professor Moore claims that he treats his cases simply by adjusting the fragment by drawing the hand powerfully to the radial side and simply putting his light compress below, holding it in position by adhesive plaster, and I have no doubt he obtains good results. I think that in the treatment of this fracture a great deal depends upon where it is located, whether it involve the joint or an inch and a half above the joint.

Dr. Kearns: There is nothing I can say to throw any light on the origin of my splint. To be brief, I should say this splint is the evolution of experience. I found that when I treated fractures of the fore-arm there would often be swelling for months afterward, interfering with the daily employment of the injured person. My desire to remedy this difficulty was the cause of my studying this matter. In presenting these splints to the New York City Hospital, they said that the principle I spoke of was the principle they had been trying for years, but failed to rightly employ. Take one of the arms not broken, put it in a straight

splint, keep it there for three or four weeks, there will be a stiff, immovable arm. Now, again, another qualifying cause of this: The cases I had were nearly all hard-working men, anxious to return to their work as soon as possible. They could not appreciate fine splint theories, but did want quick relief, and if I could not give it they were not backward about going to another physician. To meet their cases I devised the splint of which I speak, and have had good success in its use.

Dr. Murdoch: In the first place, I want to say to Dr. Thomas I am rather proud of my results. I have had good success, but I will say that I have not always treated them on the principle that I have given here to-night. These are nearly new ideas with me. I have been in the habit of treating like others. I find from the discussion which has taken place that there is the same diversity of opinion among the members here, and for the same cause I referred to in my opening remarks. Those surgeons who have seen only the minor form of the injury take one view of the case, whereas those who have seen the graver injury, like Dr. Moore's case, take another view, and advocate different treatment. When I get a case of fracture of the radius accompanied by dislocation of the ulna, I will treat it as Dr. Moore did; but the idea that all fractures of the radius are accompanied by dislocation of the ulna has been abundantly disproved by dissections immediately after the injury.

I will now answer the question asked by my distinguished friend Dr. Brashear, why all fractures of the radius are not treated in that way. It is because it has been proved by abundant dissection that all of the fractures of the radius are not accompanied by dislocation of the ulna, and that is a sufficient answer to Dr. Thomas' argument that there is a dislocation of the ulna in the majority of fractures of the radius. Dr. Brashear is the only surgeon of eminence that I know who now treats all fractures of the radius after the manner of Moore. I am familiar with Moore's treatment; I know his method. He told it in 1868, twenty-two years ago. It has not been adopted by the profession. The simple fact that it has not been adopted by the profession, after having

been presented by such a distinguished man as Dr. Moore, shows that the profession does not regard that as the usual injury. Dr. Pilcher, of Brooklyn, made an elaborate study of this subject and asserts the reason of the deformity is the prevention of reduction by the untorn periosteum. But the point I want to emphasize is, that the reduction of the fracture is the principal thing to attend to in the simpler forms of injury where there is a transverse fracture. If the fracture is reduced it will remain reduced. Dr. Daly has well said that the proper treatment of all fractures is to reduce them and then retain them in apposition. In fracture of the thigh the great difficulty is to retain the fragments in position; the extension and counter-extension must be kept up for a long period. In this fracture, at the lower end of the radius, there is no muscular action to displace the fragments after reduction. The interlocking of the fragments is sufficient to retain them in position, and where you have the simpler fracture of the radius you will have very little deformity.

Dr. Batton: Will Dr. Murdoch please tell us his method of reducing this fracture?

Dr. Murdoch: Certainly. The surgeon shall sit down by the side of his patient, and taking the fore-arm upon his knee grasps it so that the fingers of both hands will rest upon the palmar prominence, and the thumbs upon the dorsal one, making steady and firm pressure upon the lower fragment in a direction downward and forward until it is pressed into place.

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## Correspondence.

### PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The Paris special correspondent, Berlin, says that the elevation of the temperature at the moment of reaction is not a condition necessary for the efficacy of the remedy of Koch. Yesterday, at the Society of Military Physicians, Dr. Leu, apropos of a discussion relative to the method of Koch, reported that, according to the assertion of Dr. Phuhl, Koch himself does not consider the elevation of the temperature at the moment of reaction as a phenom-

enon necessary to the healing. He thinks, on the contrary, that the ideal treatment should be to suppress the fever, while exhibiting a dose sufficiently large to obtain the local reaction.

Dr. Sonnenburg has recently made, at the hospital Moabit, some interesting applications of the method of Koch; in four tuberculous patients he has opened freely some lung cavities, draining them and washing them out, having previously made some injections of Koch's lymph.

*Cicatrization of tuberculous ulcers without characteristic reaction after the injection of the lymph.* In his observations upon the method of Koch in the surgical wards of the Augusta Hospital at Berlin (*Deutsche Med. Wochens.*, December 18th), M. H. Lindner cites two curious cases in which, in spite of the absence of all reaction after the injections of Koch's lymph, the morbid phenomena have been considerably ameliorated.

One patient, operated upon for a disease, probably tuberculous, of the articulation of the elbow, had preserved after the operation a tumefaction of the articulation with painful sensibility and a fistula which would not cicatrize. Koch's lymph injected at this point did not produce any local or general reaction. Nevertheless, after this treatment the fistula cicatrized, the tumefaction disappeared, and articular movements were re-established.

The second case presented a great number of ulcers upon the sternum and some considerable tuberculous alterations in the lungs. He got injections of Koch's lymph up to three centigrams without showing any reaction; but at the end of fifteen days the greater part of the ulcers of the sternum had closed, and those which still remained had diminished to a degree that they scarcely admitted the tip of the probe.

*Is it possible to apply the method of Koch to women in pregnancy?* Since the lymph in tuberculous patients produces reactions more or less violent, its use would seem to be counter-indicated in pregnancy because of the danger of abortion.

This is the opinion of Prof. Ebstein, of the Medical Clinic at Göttingen, who refused to apply the method upon two phthisical women,



the one in the sixth and the other in the seventh month of pregnancy.

On the other hand, another German obstetrician, Dr. J. Hofmeier, Physician in Chief of the Elizabeth Hospital at Berlin, has not scrupled to submit two pregnant women to doses of from 6 to 10 milligrams. Both patients have borne the treatment without sign of uterine contraction.

In one, who was in the seventh month of pregnancy, the influence of the lymph upon the fetus was manifest. This was shown by a greater intensity of the movements of the child, and by a considerable augmentation of the fetal pulse. After the last injection of 10 milligrams the fetal pulse went up to 180, while normally it was about 132.

*Intravenous injections of Koch's lymph.* (From the Paris special correspondent, Rome.) At the medical clinic of the Faculty of Medicine at Rome the method of Koch is studied with all possible rigor and scientific impartiality upon tuberculous affections.

At the clinic are thirty tuberculous patients on whom injections of lymph are regularly made. Of this number twenty-seven are affected with pulmonary tuberculosis, and three with lupus. Concerning the effects obtained Prof. Baccilli says: "On lupus the action has been incontestably favorable and the results progressively good. But in patients with pulmonary tuberculosis the results are very variable, as much with respect to the febrile reaction and concomitant symptoms as with the physical state of the lungs. I am, however, able to affirm in general that the effects obtained are encouraging."

The words apply to the usual procedure of treatment by the hypodermic injections of the liquid of Koch. But Prof. Baccilli has made a particular contribution to the method of Koch by introducing the medicament into the veins, a procedure that he employs with success in the treatment of malaria by quinine. Believing that (as with the quinine) the liquid of Koch ought to exercise an action more powerful when introduced directly into the blood, he decided to make some intravenous injections with it. He selected some patients who had shown themselves refractory to the hypodermic

injections of the lymph in doses progressively increasing.

Until to-day the intravenous injections of the liquid of Koch had only been practiced on two patients, but this morning three others were submitted to this way of treatment. The number of observations is, of course, not sufficient to permit of any definite conclusions.

The first intravenous injection of 1 milligram was practiced the 10th of December. In the intravenous injections which have been made since, a dose of 4 milligrams has never been exceeded. Nevertheless, M. Baccilli intends to increase gradually the doses in future experiments. The technic of these injections (intravenous) presents nothing particularly new. They were made in one of the veins of the fold of the elbow by means of a Pravaz syringe with a piston of amianthus.

The first patient submitted to this method was a young man of nineteen years. He had previously undergone a series of hypodermic injections in which the dose of one or two milligrams had been without effect. A third injection of three milligrams had raised the temperature to  $39.5^{\circ}$  C., and caused at the same time a local reaction characterized by an augmentation of the intensity of physical signs in the lungs. Finally, the following hypodermic injections of 4, 5, 7, 8, and 10 milligrams were given without reaction. Being thus convinced that the patient was refractory to the hypodermic injections, M. Baccilli submitted him (10th December) to an intravenous injection of 1 milligram of the liquid of Koch; the effect was null. On the 12th of December a second intravenous injection of 2 milligrams was made. This time a slight elevation of temperature was noticed, which attained a maximum of  $37.8^{\circ}$  C. six hours after the injection. At the same time the patient experienced pains in the shoulders, in the neck, and in the knees. On the 15th of December a third injection of 3 milligrams was rapidly followed by shivering, general uneasiness, dizziness, and nausea. These symptoms disappeared at the end of nine hours. With regard to the temperature, it attained, twelve hours after the injection, a maximum of  $39^{\circ}$  C. On the 17th of December a fourth injection of 3 milligrams produced some general symptoms

less marked than formerly, and not accompanied this time by an elevation of temperature. A fifth injection of 4 milligrams did not produce any reaction. Finally, the patient to-day is to receive a sixth injection (of 4 milligrams), the effect of which remains as yet unknown.

Since this patient has been under treatment his state is sensibly ameliorated. His weight has increased, and there is marked improvement with regard to the expectoration, the number of bacilli, and in the physical symptoms.

PARIS, January 2, 1891.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Since the International Medical Congress, held in Berlin during August, there has been a fair amount of attention directed toward the physiological and chemical nature of the so-called spermine or rejuvenating emulsion of Brown-Séguard. In the pharmacological section of the Congress, where the subject was discussed, it was stated that the probable active principle of the spermine was ethylenimine, and a hint was thrown out that a good field for investigation was open for the man who would prepare the compound by synthesis and investigate its physiological properties. It may be added in connection with ethylenimine, that it was first prepared from human semen by Schreiner; in the secretion named it was believed to occur as phosphate. In accordance with the suggestion made at the Congress, experiments were set on foot having in view the synthetical preparation of ethylenimine, in order to supply the medical world with a chemically pure body eminently suitable for accurate physiological and pharmacological investigation. Assuming the base discovered by Schreiner to be the active principle of the Brown-Séguard emulsion, it is found that a base of that composition with the constitution (most simply expressed) of ethylenimine was prepared by Ludenburg, which, from its behavior, appeared likely to be double ethylenimine or piperazidine. It is considered that if piperazidine is actually identical with Schreiner's base, it may be assumed that the synthetically pre-

pared compound will have similar physiological properties to spermine. The hydrochlorate of piperazidine is a chemically pure compound which forms beautiful small acicular crystals which readily dissolve in water. It has a taste resembling that of ammonium chloride, and is believed to be non-poisonous. Piperazidine has the property of being able to dissolve a large quantity of uric acid, a fact which may have a certain physiological significance. The method of preparation is the subject of a patent, and at present the product is very expensive; the dose, however, is very small, viz., one sixth grain. Physiological investigation with the compound is being carried out, and the results will be awaited with considerable interest, especially because of the peculiar constitution of the molecule.

At the recent Leeds Assizes the case of Fox v. A. J. White (limited), which occupied two days, was watched with great interest by the medical profession. Plaintiff was Mr. Richard D. Fox, of Leeds, formerly practicing in Manchester and acting as consulting surgeon and chief medical officer to the Manchester, Sheffield & Lincolnshire Railway. Defendants were proprietors and vendors of the patent medicine known as "Mother Seigel's Curative Syrup," and plaintiff's case was that defendants published in a pamphlet an article reflecting upon his professional skill. The jury after an absence of fifteen minutes, gave a verdict for Dr. Fox for £1,000 damages.

A courtier, who was also a wag, once undertook to prove that physicians were the most numerous of all the professions. It was easily demonstrated, for no sooner did he feign to be ill than every person he met had advice to tender. A decision has been given in the Queen's Bench Division which will well merit the consideration of all non-professionals who are not actually amateur Esculaps. The action was brought by the master and wardens of the Apothecaries Society against an herbalist, who was charged with prescribing for a customer. It seemed that the medicine supplied was stamped and that the vendor never gave himself out as being a qualified practitioner. All the same the court held that he was only entitled "to sell such medicines as he was asked for."

It is stated that the Donation Bonus Fund of the National Pension Fund for Nurses now amounts to upward of £40,000. It began in January, 1888, by four city merchants contributing £20,000, increased afterward to £25,000. The whole of the money now at the disposal of the National Pension Fund has been obtained practically without any of the usual expenditure on printing, stationery, postage, etc. In other words, the money has been spontaneously subscribed by those interested in nurses as a mark of their appreciation of the services rendered by the noble women who pursue this arduous calling, often at the risk of their lives, and always with devotion and conscientiousness.

Vaccination for tuberculosis is a subject that is being kept prominently before the eyes of the public, but it is not generally known that while Dr. Koch was making his experiments at Berlin the same researches had been occupying Dr. Grancher, the assistant of Pasteur, at Paris, who also claims to have discovered an attenuated culture which renders rabbits incapable of acquiring tuberculous disease.

About ninety members of the Association of Public Sanitary Inspectors recently paid a visit of inspection to the Woking Crematorium, and a sheep was cremated in order to show the practical working of the system. The animal was placed on an iron carrier and run into the furnace, the carrier then being withdrawn and the furnace door closed. The flames and heat from the furnace are made to traverse that portion of it in which the body is placed, and they in time utterly consume whatever is placed therein. The ashes fall into a receptacle and at the close of this process are withdrawn. The operation of complete disposal in the case of human remains usually occupies about an hour. The sheep, however, took rather longer to consume, owing to its heavier weight and to the circumstance that the sight-holes in the slides of the furnace were frequently opened to afford the visitors the opportunity of watching the progress of cremation. At the close of the operation the whitened ashes of the animal, chiefly bones, were withdrawn, and fragments were taken away by many of the visitors as mementoes of the occasion. The

Cremation Society has been established for thirteen years, during which period one hundred and thirty-eight cremations have taken place. The number has increased each year. There were one hundred cremations up to the end of last year, and thirty-eight have taken place during the present year. After some remarks from Dr. Richardson, the president of the Sanitary Inspectors Association, the visitors proceeded to inspect the private cremating chamber erected by the Duke of Bedford, which is a few feet to the rear of the public chamber. The arrangements here are similar to those in the public cremating chamber and the furnace opens into a flue leading to the same chimney as the other.

A short time ago a four-footed patient was brought to St. Thomas' Hospital. He was a collie-dog named Mac, and his mistress related that while out walking he had been attacked by another dog, and during the fight was run over by a brougham. Examination showed that one fore leg was badly fractured, and the other bruised, whereupon chloroform was administered and the broken limb encased in plaster of Paris. Upon the splints being removed the dog was discharged cured. The patient was entered upon the books as "Mac; occupation, pugilist."

Sir I. C. Browne has been lecturing on the "Brain," and gives the following averages of weight: The Scotch, 50 ounces; the English, 49 ounces; the German, 48.3 ounces; the French, 47.9 ounces.

A series of tableaux are to be given shortly in aid of the Home of Rest for Nurses. The Princess Christian, as president, will be present.

LONDON, December, 1890.

ARISTOL FOR BURNS.—A severe burn occurred from scalding oil. The case was not seen for several hours, when three different applications had already been made to it. These were removed and an ointment applied, consisting of aristol in petrolatum, twenty grains to the ounce. In one week the dressings were removed. The healing had been perfect; not a drop of pus had formed, and the scalded surface was glazed.—*Times and Register*.



## Abstracts and Selections.

**THE CHARACTERISTIC ORGANISM OF CANCER.**—At the Pathological Society of London, December 3, 1890, Dr. William Russell delivered an address on the characteristic organism of cancer. He stated that he had been occupied for some years in tracing the mode of growth of cancer in different organs. By this study he hoped to map out the steps of the process, and by learning the manner of its growth to perhaps obtain an insight into the factors, determining the departure of the tissues from their normal behavior and arrangements. He had found appearances which he could not fit into modes of cell growth and nuclear proliferation, and these had so puzzled him in one case that he asked his pathological assistant, Mr. W. F. Robertson, to experiment on it with every possible combination of stains with a view to the possible differentiation of some of these structures. His attempts were soon successful by the following method: (1) Saturated solution of fuchsin in a two-per cent carbolic acid in water. (2) One-per-cent solution of iodine green (Grüber's) in a two-per cent carbolic acid in water. Place section in water. Then stain in fuchsin for ten minutes or longer; wash for a few minutes in water. Then wash for half a minute in absolute alcohol. From this put the section into the solution of iodine green, and allow it to remain well spread out for five minutes. From this rapidly dehydrate in absolute alcohol, pass through oil of cloves, and mount in balsam. By this method it was found that certain structures stained a brilliant purplish-red, while the tissues stained green. Similar bodies were found in a number of cancers, then examined, and these, for laboratory purposes, were called "fuchsin bodies."

With this discovery all kinds of possible errors suggested themselves. That they were not accidental impurities in material, bottles, or stains, was shown by the fact that tissues from the same bottles and cut at the same time gave no indication of this. That they were not the nuclei of tissue cells in exaggerated reproductive activity was tested by the cells in organizing inflammation of serous membranes not giving the reaction, nor the cells in tubercle, in typhoid lesion, in inflammatory affections, or in the organs of an embryo. That they were not globes of some degenerative substance was proved by the examination of a great variety of tissues showing different varieties of degeneration. Further, they were not present in the sarcomata, nor in simple tumors, such as fibromata, papillomata, myomata, etc., nor in venereal warts and condylomata, nor in primary

syphilitic sores. Sections of a tumor labeled adenoma of the mamma, and rich in adenomatous structures, and a gumma of the dura mater showed the bodies, but of the history of these cases he was ignorant.

Another syphilitic case which had defied treatment, and in which there was extensive destructive lesion of the fauces and larynx and the bones of the vertebra behind the fauces, showed a few fuchsin bodies in sections of the larynx. Altogether tissues had been examined in from fifty to sixty different cases selected with the purpose of subjecting the positive observations to the severest possible tests. The result was that fuchsin bodies were found in one case of chronic ulcer of the leg, one of tubercular disease of a joint with old sinuses, one of phenomenally severe, destructive, and intractable syphilitic lesion; and in two other cases, of which he had no record, one a case of mammary adenoma, and one a gummatous tumor of the meninges. He indicated possible explanations of these, and that they could not be regarded as sufficient to overthrow the other evidence.

Turning to the positive side of the question, forty-five cases of cancer had been examined, which included malignant epithelial growths of various structure, as epitheliomas of the lips and face, rodent ulcer, scirrhus of the mamma, both primary and recurrent; malignant adenoma of cervical glands, cancers of the stomach, liver, spleen, abdominal glands, supra-renal capsules, uterus, and ovaries. The pathological position of one of these was still uncertain; another was represented by sections dated 1885; in these two no fuchsin bodies were found, but in the remaining forty-three they were present. In individual sections they varied greatly in number, and it was noted that they occurred in special abundance in foci. They might be present in the small-celled infiltration at the margin of the cancer, among or in the epithelial cells, in the stroma, or in the lymphatics. As a rule, they occurred in clusters or groups of two, ten, twenty, or more, and almost always showed a clear space around them. In shape they were perfectly round. The commonest size was  $4\mu$ , but they might be much smaller or larger. Examined by daylight they appeared homogeneous and structureless.

As there seemed to be no escape from regarding these structures as special organisms, which, so far at least as his pathological material was concerned, were practically confined to cancer, the question was, were they animal or vegetable, and what was their mode of growth and reproduction? To answer this question it was necessary to consider the work which had been done, especially on the Continent, in the study

of cancer. He then referred briefly and in detail to the various papers which had appeared in French and German literature, in which it was contended that an animal parasite had been found in some cases of cancer. Summing this up and excluding mollusum contagiosum, it was found that Albarran, Darier, Thoma, Wickham, and Sjöbring had found in cancer an organism which they described as belonging to the protozoa, while Thoma did not commit himself, and only Wickham and Sjöbring give figures to aid in forming a judgment on their contentions. He next pointed out the characters of the protozoa, more especially the psorospermia or coccidia, and indicated that according to the authorities these were unicellular organisms forming in their interior psorospermia, which in turn developed spores which were usually sickle-shaped bodies, and became free parasites. To meet the necessity of this stage in their life, Sjöbring had figured the spore formation in the cancers he examined. In short, looking at the work on this subject in the concrete, he regarded some of the figures as having nothing whatever to do with foreign organisms, that others were certainly misinterpreted, while some probably represented the organism with which he was dealing.

Returning to the consideration of the fuchsine bodies, they might be studied by the special method of staining given, or by logwood and eosine, or by Gram's method with methyl violet. Each group and most of the isolated individuals were surrounded by a clear area, often having the appearance of being bounded by a definite capsule. In so far as the isolated individuals were concerned one entered an epithelial cell—the protoplasm and the nucleus of which stained with logwood—while the foreign organism lay in a clear area or vacuole in the cell protoplasm, to which there was no true capsule. Both in the epithelial masses and the vacuoles referred to there might in addition be small fuchsine bodies surrounded by a clear space, and bounded by a capsule or limiting structure. Further, it was to be noted that in the vacuoles there might be several fuchsine bodies; while in others the fuchsine body was granular and had lost its characteristic staining reaction, and showed undoubted spores in its interior. In the epithelium it may also be noted that some fuchsine bodies are surrounded by a vacuole, while others are not.

From the foregoing it might be contended that the organism in question was a protozoön, were it not that in sections stained by Gram's method the mode of reproduction is shown quite diagrammatically. The large fuchsine body is seen to give out a small globular body, which increases its distance from the parent

body but remains attached to it by a filament; this bud grows and gives off another and a short chain, or other forms may be produced. The small spores could also be seen in the interior of the lymphoid cells, or leucocytes in the infiltrated area, the effect of this being to clear up the protoplasm of the cell and to produce a clear space or vacuole with a limiting ring. This he thought was the mode of formation of what might be called the free encapsuled organism present among epithelial cells or lying in vacuoles. As to the appearances in the interior of epithelial cells, the foreign body at first had no vacuole round it, but ultimately developed one, and this was to be accounted for by its influence upon the surrounding protoplasm leading to its classification. He said that there could be absolutely no doubt that the organism was a fungus which belonged to the sprouting fungi, *Sprosspilze*, of Nägeli; but the proof of this was not to be readily found in every section, for the usual arrangement was in clusters, especially as demonstrable by fuchsine and iodine green method, which he thought acted best when the organism was at a certain stage of its growth.

In conclusion, he said that if the presence of this parasitic fungus in the cancer was confirmed by other observers, we had found in it an organism whose nutrition, reproduction, and death in the tissue could hardly be conceived as occurring without producing changes not disproportionate to the anatomical changes present in cancer.—*London Lancet*.

ON THE ADMINISTRATION OF CHLOROFORM. Death under chloroform is, unhappily, a frequent occurrence. We hear of a few deaths, probably not all, and if we accept 1 in 3,000 as a working estimate of their frequency we are probably within the mark, although Surgeon-Major Lawrie says he has given chloroform five or ten times daily for fifteen years without a casualty, that is, a mean of 40,000 anesthetics; and other exceptional estimates have been given by Baudens, 1 in 10,000 during the Crimean war, and Hunter McGuire, 1 in 15,000 during the Secession war. These deaths may be due to (1) impure chloroform; (2) careless anesthetization; (3) careful but faulty methods, in any of which events the chloroform is not to blame; (4) the direct effect of the anesthetic, due to its intrinsic properties, and unavoidable by care, skill, or the most approved methods.

No. 1: The impurities of chloroform which may produce untoward effects are free acid, free chlorine. These, however, always give rise to coughing, and assail the nose of the administrator as well as the patient. Chloroform, when left



for long exposed, liberates noxious fumes, and should in this case not be used; and chloroform, when given in a room heated strongly by illuminating gas, also decomposes, and most pungent and irritating fumes are given off, but only the utmost carelessness could fail to detect such a state of things. I think we may take it that by far the greater number of cases of chloroform deaths occur in public institutions, hospitals, etc., where the drug is in constant use and for several patients. We may fairly say then that reason No. 1 accounts for but few cases.

No. 2 is probably a more common source of danger, and is one which is likely to be still more prolific of evil if the belief gets abroad, as a daily paper expressed it, after the first authoritative statement that the heart was unaffected by chloroform, that taking this anesthetic possessed no more danger than taking a glass of whisky and water. If the contention of those who deny primary cardiac syncope as a possibility in chloroform narcosis be just, any method which insured due respiration and a percentage of chloroform below four per cent must be approved and be safe, unless the personal equation of the administrator coming in changes the safety to danger by his failing to watch the respiration, etc.

No. 3: Undoubtedly some methods are open to grave cavil, but by far the most common methods employed are the open method, viz., the use of lint or a towel, Skinner's mask or Junker's apparatus, and these are not faulty in principle, although dangerous in that the administrator may through heedlessness lessen or increase the strength of the anesthetic to a dangerous extent.

No. 4: Chloroform kills, all admit, through respiratory paralysis; while observers are divided as to whether it also ( $\alpha$ ) allows death through reflex shock in a patient partly or wholly under its influence, or ( $\beta$ ) destroys life by direct and primary heart syncope. Admitting only that extinction ensues through respiratory paralysis, one party affirm, and so far justly if we admit their premises, that the duties of the administrator are really free from anxiety; watch the respiration, say they, and if it fails take your measures promptly—artificial respiration undertaken before the heart has given out (secondary heart syncope) will lead to resuscitation. On the other hand, those who contend that chloroform kills directly through the heart teach us a mournful story. Take the utmost care, use the most perfect method in the most approved and conscientious fashion, watch for the inception of symptoms of danger and grapple promptly with the peril, and yet in spite of all a certain number of the patients will die. Both will admit the danger

from heart syncope secondary to respiratory failure, and both will submit that such deaths should not occur; that they mean in many cases carelessness and deviation of the anesthetist's attention from the patient, and both will assert that most of such patients can be brought out of their peril by prompt and skillful employment of artificial respiration, etc. It then becomes necessary to consider the evidence upon which these rival schools of thought and teaching base their opinion and practice. In this connection I would point out a most valuable source of information which has up to the present been but lightly laid under contribution, and which is capable of furnishing the most valuable testimony. I refer to the frequent cases which are met with by those who have a large practice in chloroforming in which untoward symptoms occur, but which, not ending fatally, are not recorded in the medical press, and perhaps noticed only by the chloroformist himself.

Upon the question of primary heart failure the Hyderabad Commission have definitely assumed the position that respiration always fails before cardiac syncope—in other words, that cardiac syncope is invariably secondary. The immense care with which the work of the commission was conducted, the great help it received from the experience of Surgeon-Major Lawrie in chloroforming, and that of Dr. Lauder Brunton in physiological research, render its conclusions of especial value, and justify us, I think, in saying that if primary heart failure from chloroform is a delusion, the Hyderabad Commission were competent to prove the same up to the hilt. The evidence adduced is now common property, so that detailed quotation is needless. In chloroforming considerably under one thousand dogs, rabbits, etc., the Commission failed to induce primary syncope, and Surgeon-Major Lawrie in, say, 40,000 inhalations in human beings, the bulk of whom we may assume were Asiatics, never lost a patient. Two classes of fatalities occurred among the lower animals, (1) death from failure of respiration, and (2) accidental deaths, the cause of which the report fails to recognize, except that it assumes it was due to an overdose. An effort was made to bring about fatty changes in the dog's heart by giving phosphorus, etc., but even then primary heart failure did not occur, nor were the commissioners able to show any evidence of shock occurring in the lower animals while under chloroform. If this brief statement fairly represents the outcome of the Hyderabad Commission's work, we find their evidence to be wholly negative upon this important matter. But the question of primary heart failure does not rest solely upon the nega-



tive evidence mentioned above. Snow and the older authorities fully recognized the condition, and the Glasgow Committee, both in their original and recent reports, have distinctly asserted that even among the lower animals primary heart failure occurs, while it has been left for Prof. McWilliam, of Aberdeen, to explain the *modus operandi* of the prejudicial action of chloroform upon the heart.

Again, the independent testimony of Prof. Wood, of Philadelphia, has been given to the occurrence of primary heart failure under chloroform, and quite recently he had been at the pains of reinvestigating the matter, with a result confirmatory of his original decision. Reverting to the careful research of Prof. McWilliam, we find the following phenomena narrated and graphically recorded by an ingenious arrangement of apparatus. Animals kept under artificial respiration worked by an arrangement which insured equal and tranquil breathing, and at the same time enabled the operator to give any definite percentage of chloroform, were watched to see what effect the chloroform so given had upon the heart. This effect is notable. The heart muscle relaxed, and dilatation took place, leading, of course, to gradual failure of circulation. Up to a certain point this "give" of the heart muscle was recoverable, and upon chloroform being stopped the heart regained its normal tone and contraction. Other phenomena associated with the action of chloroform upon the heart are summed up under the term *delirium cordis*, or arrhythm of the heart muscle leading to futile contraction of portions of the myocardium without assisting the viscus to effectually contract and expel its contents. In some cases the dilatation was sudden, and all efforts at resuscitation failed. These results are important, in so far as they are positive, not negative, and because they are demonstrable; the heart is seen to undergo dilatation and to contract up to its usual capacity, or to give out altogether, as the case may be. We have, then, to a certain extent, a conflict of opinion, the one based upon negative, the other upon positive evidence, at least in the field of experimentation; but I submit neither view can be allowed to go wholly unquestioned when we pass from dogs and monkeys to men.

I have sometimes found that the heart flags even when respiration, judged by the eye and the plan above mentioned, shows no alteration; that not only is there evidence of general feebleness of circulation, which might be attributed to the fall of blood pressure, regarded by the Hyderabad Commission as protective, but that distinct and unmistakable cardiac enfeeblement occurs. Further, this is progressive, and likely, it has appeared to me in more than one case,

to end in cardiac syncope unless prompt and vigorous measures were used. Inversion, which undoubtedly would be highly prejudicial in chloroform danger due to respiratory paralysis or asphyxial conditions, proves highly efficacious in such cases of cardiac and circulatory enfeeblement. In contending that a fall of blood pressure is protective, I think a most important factor has been left out of consideration. For granted that such a fall leads to lessened intake of the narcotic vapor, it also determines a lessened output of that which still circulates in the blood. Things being equal, I believe that chloroform acts more harmfully upon poorly oxygenated blood and tissues, for example, the anemic, the cyanotic, those whose circulation is depreciated by fatty changes in their heart and other viscera, than upon those better supplied with oxygen. On the other hand, cases present themselves when, from the nature of the operation, the chloroforming is complicated by partial asphyxia, and these offer a contrast in that their danger reveals itself in respiratory difficulty, leading even to cessation of breathing. I have found, however, that such cases responded readily to artificial respiration, and danger was over. Words give a poor idea of the contrast presented between these two categories of cases, but one has only to be brought face to face with them to be convinced that their difference is one of kind and not one of degree.

Again, having once seen the heart relax and dilate under chloroform, as in Prof. McWilliam's experiments, one recognizes the anatomical counterpart of the procession of events which one had encountered again and again in the operating theater. It would subserve no useful purpose to attempt to explain the discrepancies which appear between the experiments undertaken by the Hyderabad Commission and those of other observers, or to reconcile these results with those arrived at by the daily observations, now hundreds of thousands in number, made by medical practitioners in surgical cases; but it may be mentioned that it has been amply shown, by experience with the lower animals and man, that the more highly organized and differentiated nervous systems are more easily affected by reflex shock. Fainting caused by emotion, common in man, is not a daily occurrence among dogs or monkeys.

It may be remarked that it is singular that Prof. McWilliam's dilatation was not discovered by the Hyderabad Commission. The conditions, however, were wanting, for their animals were permitted to die or get in *caterem* through respiratory difficulties, so that stress of the anesthetic was made more evident in most cases *quâ* the respiration than *quâ* the heart,

although some of the cases must undoubtedly have revealed the condition had it been sought. A further point noticeable about dogs is that they are peculiarly susceptible to respiratory failure under chloroform, and in performing physiological experiments upon them the utmost care has to be used unless artificial respiration be employed to prevent death from cessation of natural breathing.—*Dr. D. W. Buxton, London Lancet.*

**EXPERIMENTAL PERITONITIS.**—Waterhouse (*Virchow's Archiv. ; Centralblatt für Klin. Med.*) in a series of twelve observations confirmed the results of Grawitz, and negatived those of Pawlowsky, that a considerable quantity of a virulent culture of the staphylococcus aureus might be injected into the abdominal cavity without causing peritonitis. Also, when the staphylococcus is mixed with an untried medium, it causes no disturbance if the mass can be readily absorbed; the greater the difficulty of absorption the more certain the production of peritonitis. Trials were made with agar-agar, gelatine, and coagulated blood, each containing the staphylococcus, and the results were positive. Pus containing the staphylococcus possessed strong pyogenic properties, due, the writer thinks, more to its contained chemical substances than to its micro-organisms. The observation of Grawitz, that when the infection was introduced through a wound in the abdominal wall peritonitis followed, was not confirmed. When the wound was penciled with turpentine an abscess was produced, but only in cases where the wound involved the peritoneum; if it extended only to that membrane and not through it, no abscess was caused. When artificial defects were produced in the peritoneum, injections of the staphylococcus caused peritonitis; a similar effect was produced in animals affected with ascites. A strangulation of the intestine for some hours, similar to that produced by a hernia, invariably caused peritonitis after the injection of the staphylococcus into the abdomen or blood-vessels. The same result was reached if the coccus was injected subcutaneously, but not if it was placed in the intestine. A few observations upon man has shown that the staphylococcus may be injected under the healthy skin without danger, but that suppuration follows if the absorption is hindered or the normal conditions are altered by passive hyperemia.—*Journal American Med. Association.*

**TURNING TWELVE HOURS AFTER RUPTURE OF MEMBRANES.**—The following is a report of a case I have recently attended which I think possesses some features of interest.

One morning recently, soon after five o'clock,

I was called to a case about two miles from my house. The husband, who brought the message, said his wife had been in labor since early in the afternoon of the previous day, that the midwife had been with her all night, and now had sent him for me, as it was a "medical case." He added that a part of the child had been born ever since five o'clock of the previous afternoon. I attended as soon as possible, and, on arrival, found the woman to be a multipara, aged forty-two, and on examination found the hand and arm of a fetus protruding from the vulva. The membranes had ruptured about five in the afternoon, and almost immediately the hand was protruded from the vagina, and shortly afterward the arm as far as the elbow-joint. The woman's strength seemed very well maintained, and the pains had not been very frequent or strong through the night, so I determined to make an attempt to push up the presenting arm and turn. This I was unable to do without chloroform, the uterus becoming strongly contracted round the child as my hand entered it. However, on putting the woman thoroughly under chloroform, after some difficulty and perseverance, I was able to reach a foot and bring it down. Delivery was accomplished in about twenty minutes, there being some delay as the head passed through the brim and outlet. The child was a very large one, and when I saw its proportions I was surprised at the comparative ease with which turning was accomplished after the membranes had been ruptured so long. It was still-born, and its position in the uterus was abdomino-anterior. The mother is making an excellent recovery. I took care to impress upon the midwife not to delay in sending another time, if such a case should come under her notice.—*Geo. H. Butler, L.R.C.S., London Lancet.*

**FATAL POISONING WITH MALE FERN.**—An account of a case of this nature is given in the *Therapeutische Monatshefte*, in which death ensued upon the administration of two drams of the ethereal extract of male fern, given as an anthelmintic. A child, five years and a half old, was given the amount named, within an hour and three quarters, in three doses. A portion of the tapeworm was expelled in an hour and a half; then vomiting set in, followed by somnolence, twitchings, and trismus lasting ten minutes. Death took place in five hours after the last dose was given. At the necropsy there was found tuberculosis of the lungs and abdominal glands; and the unusual results from a dose of the extract, such as was given, were presumably due in part to the impaired resistance to the action of the drug incident to a physique broken by tuberculous disease.



# The American Practitioner and News

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## KOCH.

In the *Deutsche Medicinische Wochenschrift*, of the 15th inst., Dr. Koch gave to the world what he knows of the nature of the lymph, and his method of preparing it. Since then the article has gone all over the world by telegraph, and much of the mystery attaching to the remedy is dissipated.

The fluid is a less than one-per cent glycerine extract of a pure tubercle bacillus culture, the bacilli having been killed by slow, low heat, or by chemicals. As to its chemical nature the discoverer says, "I don't know," but believes it is not a tox-albumen because it bears high temperatures and goes quickly through the membrane of the dialyzer. It is probable, therefore, that it is of the nature of an alkaloidal or alcoholic product of fermentation.

Dr. Koch was led to the discovery by noting the difference in effects when pure cultures of tubercle bacilli are injected into healthy and into tuberculous guinea pigs. In the former the wound closes over with a sticky exudate. After ten to fourteen days a hard nodule presents itself, which, soon breaking, forms an ulcerating sore, which continues until the animal dies. In the latter the point of injection assumes a like sticky covering at the beginning, but no

nodule forms. The tissues for a centimeter around the point grow dark, become necrotic, and are then thrown off, leaving a healthy ulcer that soon heals. It was found that this remarkable effect upon the tuberculous animal followed injections of cultures in which the bacilli had been killed as definitely as it did those containing the living microbes. Hence the conclusion was warranted that the effect was due, not to the microbe, but to some principle belonging to it or produced by its growth. When experience proved that a new substance of high physiological potency had been isolated, the secret was given to the profession. It remains now for the chemists to determine the nature of the substance, and for the therapeutists to tell us what it will and will not do.

This almost every doctor who can obtain the fluid seems, just now, to be doing; but time only can clear up the problem.

Results seem to substantiate the modest claims made for the agent by the great bacteriologist in his first manifesto, to-wit: that it is applicable to the treatment of and may cure lupus, superficial tuberculous lymphatic glands, and tubercular bone disease; that it will be a valuable diagnostic measure in incipient phthisis pulmonalis, and will serve to differentiate tubercular lesions from those of syphilis, leprosy, and cancer.

These points sustained, and the discovery becomes the most important in the history of therapeutics; but testimony as to these is as yet indefinite and conflicting.

Prof. Virchow says the experimenters are going too fast, and his note of warning is repeated by other eminent men.

## THE LYMPH IN LOUISVILLE.

Prof. D. W. Yandell, of the University of Louisville, is in receipt of a package of the lymph through the kindness of the Hon. Chapman Coleman, First Secretary of Legation, Berlin.

The medicine will be used on suitable cases at the College clinics, its effects studied, and results given through the columns of the *American Practitioner and News*.



## Notes and Queries.

**EUCALYPTUS GLOBULUS.**—H. Benjafield, of Tasmania, writes to the London Lancet as follows:

While writing this I am surrounded on all sides with plants of *eucalyptus globulus*, from the tiny seedling a foot high to the huge blue gum (as the tree is known here) towering up some three hundred feet. The medicinal virtues of its leaves have been long known, the aboriginal inhabitants of our beautiful island knowing of and using them for various troubles. But our knowledge has never, so far as I know, been tabulated, and we labor at great inconvenience in prescribing it. The Bushmen often tell me of cures "by blue-gum leaves." One has applied the raw leaves to patches of rash; another has kept a joint affected with rheumatism enveloped in them; mothers tell of wonderful cures of diphtheria by enveloping their patients in clouds of steam from hot leaves covered with boiling water; other people, again, swear by infusions of the leaves taken in wine-glassful doses for all sorts of internal troubles. In fever cases nearly everybody hangs them about the bedroom of the patients, and in various lung troubles the leaves are burned or smoked so that the patient inhales the smoke. We have a great variety of eucalypti, most of which are found in the other colonies, but Tasmania is the home of the *eucalyptus globulus*; indeed, it is very doubtful whether it is indigenous to any other country, only stray plants occurring in Australia, and our Bushmen never dream of using any other variety as medicine. When held up to the light the essential oil is seen in tiny globules scattered thickly through the leaf-cells, and the most active medicinal properties appear to exist in this oil. Hitherto but little opportunity has been given to test the medicinal powers of *eucalyptus globulus*, as practically none has found its way into the market.

The *eucalyptus* oil sold, as given by Martindale and others, is distilled from, as Martindale puts it, "the leaves of *eucalyptus amygdalina* as well as *eucalyptus globulus*, and probably other species." This is quite true. A man who had worked for years in various Australian

distilleries told me that he had seen but two *eucalyptus globulus* trees, and they were carefully preserved to show visitors. But our people would no more think of using peppermint (*eucalyptus amygdalina*) for their ailments instead of blue-gum than your people would use oak instead of senna leaves. The peppermint is quite unknown here as a medicine; it grows as a low shrub or stunted tree on dry, rocky hills, with thin small leaves, which are rich in its peculiar camphorous oil. But the *eucalyptus globulus* luxuriates in wet ground, produces large scimitar-shaped leaves, and is in many ways the true "fever" tree. It contains but a small percentage of oil, and the oil is difficult to extract, but when obtained it is very superior to that from other eucalypti. Hang a bunch of other eucalypti, such as *E. amygdalina*, in a bedroom, and a bunch of this in another, and one soon recognizes by the smell and air of the room the difference in the two.

For some years medical men in Tasmania have been using *eucalyptus globulus* in medicine, and with excellent results. The following occurred in my own child, aged two. For four months she lay ill with infantile remittent fever, until she was reduced to a little skeleton, which we carried on a pillow. A chart of her temperatures lies before me, but far too long to copy. The chief feature is its irregularity. One day a high morning temperature would be normal by night; on another day it would be highest at noon; another day would follow with a normal morning and mid-day temperature, to rise to 103° at night. Thus it ranged from normal to 104° all through the four months, with anorexia, constipation, chills followed by sweats, etc. Every drug I could think of was tried with Pack's graduated bedroom temperatures, diet, etc. Over and over again did we return to quinine, arsenic, etc., but they seemed to have no effect whatever. Searching through various materia medica, I dropped upon an article in an American book on *eucalyptus globulus* which seemed to fit the case. Some blue-gum leaves were soon obtained, and a rough infusion made and given in teaspoonful doses. The first dose seemed to break up the fever, and with the exception of a little rise in temperature for one day, a week

afterward, she had no return until a year later, when she again sickened, and after other remedies had failed, blue-gum again asserted its power, and she has since been strong and robust.

Since then I have been constantly using it in fever cases taking on a remittent type. In the latter stages of typhoid, when relapses are so troublesome, it does better than any drug I have yet seen, not only acting on the fever, but I believe by its anti-septic power helping to destroy the fever germs in the system. For these cases I give teaspoonful doses of an infusion of the leaves every two hours; perhaps the oil may do as well, but I do not take kindly to it in these cases. In nasal catarrh the oil seems to me to act as a true antiseptic when sniffed up the nose as vapor, or just put a few drops into the palms of the hands and sniff up strongly. It is gaining great repute here for stopping these colds. When I find one coming on I carry a small bottle in my pocket, and take a few good sniffs occasionally as I drive along. In the essential oil we notice a great difference in smell, taste, and other characters between eucalyptus globulus oil and peppermint. That from eucalyptus globulus is an oil, the other is more spirituous in character, and for rubbing into rheumatic joints is far preferable. For injections the eucalyptus globulus to my mind is by far the best. As previously mentioned, for fever cases I like an infusion of the leaf as the purest preparation of the drug I can get, and when using the oil I like the first distillate. After rubbing up a green leaf between one's fingers a sticky oily feeling remains, and the first distillate of eucalyptus globulus is very like it; this to my mind contains valuable properties which are damaged or lost in treating with potash redistillation, etc. Other medical men here have had large experience with these eucalypti, and they tell me they always use eucalyptus globulus when giving it for fevers. Mr. Hardy gave me a striking case of scarlet fever which he treated by putting the patient in a hot eucalyptus globulus bath when she seemed *in extremis*, and with excellent results. In diphtheria it not only acts as a germicide and antiseptic to the throat, but helps to break up the relapses of fever. I am now trying it

on ringworm, leucorrhea, etc., but my observations have not been sufficiently careful to warrant any statement of its virtues in these affections.

NEW DEPARTURE IN THE THERAPY OF DIPHTHERIA.—Discoveries in the prevention and treatment of infective disease seem to be the order of the day. Hardly has the medical world been familiarized with the properties of the anti-tuberculous fluid of Prof. Koch than its attention has been diverted to another series of researches in the domain of protective inoculation, which, if substantiated, are no less startling than the former. The guarded allusions made to these researches by Sir Joseph Lister in his lecture at King's College, delivered last week and published in our present number, show that he at least is satisfied of the accuracy of the conclusions arrived at by Drs. Behring and Kitasato from their experiments carried on in the Hygienic Institute. But their publication in the *Deutsche Medicinische Wochenschrift*, although embracing details of experiments, does not reveal the essential point of their discovery. Their general conclusion is that the blood serum of animals which have been rendered immune from the action of the virus of diphtheria and of tetanus can be employed as a protective against these poisons in other animals. They defer announcing their method of procuring the immunity in the first instance, and Sir Joseph Lister has only whetted universal curiosity by saying that it is by "the injection under the skin of a small quantity of a material perfectly constant in character—an inorganic chemical substance as easily obtained as any other article in the materia medica."

We regret, in the interests of science, that such important results of experimental work as that of Prof. Koch upon tuberculosis, and now this of his two pupils on diphtheria and tetanus, should be published to the world in an incomplete form. The interesting interview with M. Pasteur, published in the Times of December 5th, shows how that eminent experimentalist deprecates the premature announcement of these researches, and even regrets that the fact of studies of the kind being in progress at the Pasteur Institute should have become

known. The blame, however, as M. Pasteur admits, does not rest with Prof. Koch, who, as we all now know, had his hand forced by higher authorities. But surely there was no such urgency in the case of these investigations of Drs. Behring and Kitasato, and their discovery might well have been retained until they were in a position to reveal every step of the process whereby they have arrived at their remarkable conclusions. It must be further observed, and they themselves admit it, that their research is strictly limited at present to animal experimentation; of the applicability of their discovery to these diseases in man there is as yet no evidence.

Almost simultaneously with the publication of these researches, Dr. C. Fraenkel published (*Berl. Klin. Woch.*, No. 49, Dec. 3d) an account of his observations, conducted by himself and Dr. Brieger, upon immunity from diphtheria. Their aim was to discover a means whereby the toxalbumen produced in the growth of the bacilli of diphtheria could be so modified as to serve as a protective agent. Without detailing the various ways in which they attempted and failed to get such a product, it must suffice to say that they found by heating the filtered culture-fluid to 60° or 70° C. it could be used as a protective agent, which, injected subcutaneously in the guinea-pig, rendered that animal free from the effects of subsequent inoculation with the diphtheria virus. As a further result of their experiments they arrived at the conclusion that the material which afforded this protection was not of the same nature as the virus itself; and that therefore the result was not due to any process of attenuation by heat. For if the culture-liquid were only heated to 55° it still retained its specific toxic property; while, if heated to 100°, it lost its protective qualities. The inference was that the culture-fluids contain at least two kinds of toxalbumens, the specific poison of diphtheria and its antidote, and that the former was destroyed by a slightly lower temperature than the latter. We use the word "antidote" in a general sense, for it is important to bear in mind that the material does not prevent the action of the diphtheria virus after this has been inoculated. If any

thing, it seems to hasten the fatal termination. As a protective it has, however, so far succeeded in their hands in these experimental cases. Hence, so far as can be at present judged, the discovery of Drs. Behring and Kitasato is likely to be more fruitful of beneficial results.

In the last place, it may be observed that these researches entail the acceptance of the specific nature of the bacillus of Loeffler for diphtheria, and the bacillus of Nicolaier for tetanus; in respect to which latter it may be interesting to cite the conclusions lately arrived at in a lengthy study of the subject of the etiology of tetanus, by Drs. Verhovgen and Baert, of the Brussels University. They declare that tetanus is an infective and specific disease; that the specific bacillus may be met with outside the infected organism, in the soil, and may be found in the hairs of the horse or other animal, in the dust of hay, on surgical instruments, etc., and that the horse especially may be a medium of the transmission of the virus, just as the bovine species may be of that of tuberculosis; and they consider that as regards tetanus the "reign of empiricism" is past, and that new therapeutic methods, based on these truer conceptions of its pathogeny, may be arrived at. That hope seems now to be in progress of fulfillment.—*London Lancet*.

SPECULATION ON THE ACTIVE PRINCIPLES OF KOCH'S REMEDY.—After a careful consideration of Koch's article in the *Berliner Klinische Wochenschrift*, I have more veneration than ever before for a man who can come and state so simply what he believes he has discovered, and what, if discovered, is the greatest boon ever given mankind by one of our ranks. The long-sighted circumspection that refused to give the secret to the world until the troubled pool of science had again obtained its equilibrium is second in my mind only to the dogged perseverance that has propelled that brilliant mind to the conclusion it has reached.

Whatever may be the outcome of this effort as a radical cure for a disease, the effect can never be lost to medicine, for so sure as there are causative germs of disease, there must be combative agencies for them, and this attempt at applying one will surely produce others out



of which good may come, even if this should fail.

Every one has speculated as to the probable composition of the remedy (remedy, you notice, he calls it every time, not lymph, or ptomaines, or any thing else indicative of its nature or origin), and many analyses have been made of it, some, in fact most authors presume that the fluid must contain some of the ptomaines. One Paris journal reporting an analysis goes so far as to say that it is one of the most deadly of ptomaines. There are some things in Koch's article that would seem to indicate that it may not depend on this source for its power, and the first point that started me on this train of thought was that he states that if the remedy be treated with distilled water for dilution, it soon decomposes and becomes cloudy and bacteria develop in it. But by heating or treating with a five-per-cent solution of phenol this is prevented; at the same time this continued too long diminishes the power.

Now why should heat in moderation, or phenol in five-per-cent solution for a short time, fail to destroy a ptomaine (an alkaloidal substance), when in a prolonged degree it will?

Then, again, the hypodermic injection is certainly not analogous to any other alkaloid that waits four hours and then manifests its activity by a chill followed by a fever; or can it be expected of a ptomaine so deadly, that in comparatively large doses it should be harmless for a healthy man, while in those diseased with tuberculosis the intensity of its action should be proportionate to the amount of tissue involved.

Again, do we find any analogy to the supposed action of this remedy on tubercle in the action of mercury or iodide of potassium in the manner that they break down and carry off a corresponding tissue in syphilis? Here we have no febrile reaction preceded by a chill, be the amount of tissue ever so great, and the dosage at the bounds of therapeutic limits.

Returning again to Koch's statement that in the strength in which it leaves his laboratory his remedy is permanent, that is, does not decompose, and no special precautions have to be taken for its preservation, it would seem to be indicated that if there are any organisms in the original preparation they are held in subjection

by the presence of a material that is in just the right proportion; for by dilution with distilled water, which is probably sterile, the check to growth is removed and very soon bacterial vegetations develop therein, "it becomes cloudy and is no more fit for use." We can't for a moment suppose that we are directed to add water that is not thoroughly sterile; so, if under proper precautions there is a development in the mixture of bacterial vegetation, evidently it must come from the primary fluid.

We are told to avoid this decomposition by means of heating or the addition of five-per-cent solution of phenol; both of these measures after a time interfere with the activity of the remedy.

Either of these measures would probably destroy bacteria, if they were present; but there are certain spores that would withstand their action for a time, which may allow of the surmise that the activity of the remedy may depend on the presence of the spores of some particular bacterium.

The history of the reaction is more suggestive of an acute, infectious disease with local reaction, than of the exhibition of any medication. Certain disease germs attack certain tissues and require peculiar conditions for their growth. May not this be supplied in this case by the tubercle tissue? For we do not see general reaction before the local is already present, and there is every indication of intense local engorgement even to a degree of necrosis, within sharply bounded tuberculous herds, a zone of inflammatory limitation. Now, right here we are informed that histological examinations of these tissues so influenced are wanting. Decidedly wanting, we should infer from a case that is reported to have died, in which there had been opportunity for injection some days previous to death, where such examinations were not made. Dr. Israel apologizes for the seeming neglect of a complete autopsy by saying that he was not aware that it was a case in which the Koch remedy had been used; hence his neglect of making a careful autopsy. Possible! not very plausible to any one familiar with the intimate family relations that exist in Charité Hospital between the various branches of medicine, surgery, etc., and Virchow's do-

main on the eastern side of the inclosure, and who also knows the pertinacity with which a German physician follows his experiments even after death; though this silence as to the histology of the local reaction may be insignificant, does it not look as though we might know more than our great experimenter would care to have us if a careful histological record were incorporated in his report, as we might then hear of blood-vessels and lymphatics packed with bacilli in these tuberculous regions, which might give us a broad hint as to the value of his remedy.

Undoubtedly there might be ptomaines present in any spore-containing material; but is it not simpler and more reasonable to carry out the train of thought here suggested than the refined theorizing of the actions of peptones, enzymes, etc., injected subcutaneously?

Theorizing and speculation are in vogue now, so we may as well take what pleasure we can in them; but in the mean time do not let us vituperate a man who promises to be so great a benefactor, for, whatever the remedy may consist of, it is undoubtedly connected with the growth of what must be the purest of cultivations, any deviation from which would be attended with fatal results; so let us wait hopefully and thankfully until the mind that is proving so great a discovery admits that the necessity of secesy no longer exists and his ways are not past finding out.—*Dr. D. G. Brown, New England Medical Monthly.*

JENNER AND KOCH.—*Habent sua fata magistri*; the reception and diffusion of Jenner's great discovery was different from that of Koch by all the differentiation between the close of the eighteenth and the close of the nineteenth centuries. Jenner, after twenty one years spent in maturing and perfecting his idea, had to wait long, in those days of slow traveling and undeveloped journalism, before it became public property. Koch, on the other hand, has positively had to suffer from the feverish haste with which his "cure" has been caught up and applied. Vaccination had for years to struggle with opposition and distrust; the injection of the Koch liquid has been so promptly appreciated and put in practice that it is already

sharing the reaction inseparable from too sanguine expectation. It is in Germany that the contrast in the fortunes of the two discoveries is most keenly felt, and Stricker's classic monograph on vaccination is appealed to for points of dissimilarity between the slow advance of the one and the "leaps and bounds" of the other. It was not till July, 1801, that the Prussian Medical Department, for the first time on the Continent, issued instructions to all "*Collegia Medica et Sanitatis*" to give vaccination a trial. In June, 1802, the same official authority lent its *imprimatur* to the practice, and in October of the same year the Anti-Smallpox Vaccination Institute was established at Berlin. Popular literature, sermons from the pulpit, dramatic representations, and copy-book aphorisms in schools, had all to be pressed into the service as means to awaken the public mind to the importance of vaccination. A specimen of the "*Vorschriften zum Schönschreiben*," by which the juvenile intellect was weaned from the dread of the prophylactic innovation is the following, taken from a publication at Coburg and Leipsic in the year 1805: "Ignorant and ill-disposed people, who will neither understand nor adopt what is good, have spread abroad lies of all kind against health-giving vaccination." At Magdeburg about the same time, "The Cow-Pox," a family scene in one act, was produced and dedicated by the author, Prof. Rambach, to Dr. Welper, as the "savior of his children," the piece closing with the introduction on the stage of the children in question, each with well-developed vaccination marks on his arm. By such methods had the good German public, at the beginning of the nineteenth century, to be educated out of their well-grounded dread of inoculation, and into a hearty adoption of vaccination. With Koch's discovery, on the contrary, the profession is laboring to tone down a too roseate expectancy, and thinks it has scored a point when the question has come to be asked: "At what stage of tuberculosis is cure possible?" Meanwhile Koch himself, who is in no way to blame for the unreasoning enthusiasm his discovery has evoked, continues to perfect the system which has already cost him sixteen years' work. *London Lancet.*



**CHLOROFORM VS. ETHER.**—The report of the Hyderabad Commission on this subject is doubtless fresh in the minds of our readers. It will be remembered that the unanimous conclusion of the members of that body, after very elaborate investigation, was, that in death from chloroform respiration always ceased before any dangerous failure of the heart took place, and that its effects were precisely similar to those of ether, except that the dose of ether needed to be much larger. Naturally, a view of the subject so opposed to the opinions of a large proportion of the profession could not be expected to meet with immediate acceptance, and, as a matter of fact, it was quickly controverted in various quarters. An important contribution to the subject has just been made by Dr. J. A. McWilliams, in a report to the Scientific Grants Committee of the British Medical Association, published in the *British Medical Journal*, which goes far to show that the conclusions of the Hyderabad Commission are not applicable to all animals, and that there is some ground for the belief, heretofore widely held, that chloroform has in some cases a pernicious influence on the heart that is not shared by ether.

Dr. McWilliams began his experiments in 1888, at a period, therefore, long before the report of the Commission, and continued them at intervals down to a recent time. The animals employed were principally cats, and the aim of the investigation was specially to observe directly the effects of the drugs upon the heart. For this purpose the chest was opened under suitable precautions against hemorrhage, and an automatic recording apparatus attached to the heart, artificial respiration and the administration of the anesthetic being effected by means of a bellows connected with a canula inserted in the trachea. By this means it was possible to watch the action of the heart during the experiments, while the circulation went on undisturbed, except for the effects of the drugs administered. It was found that dilatation of all the cavities of the heart frequently occurred under the influence of chloroform at an early period; in many cases before the cornea became insensible, and without interference with the regularity of the heart's action. This was

usually associated with a fall of blood pressure, but bore no constant relation to it. In some cases a periodical depression of the ventricular action was also noticed. Neither of these effects was observed from the administration of ether, even when pushed to the extent of completely abolishing the conjunctival reflex. In many cases the drugs were repeatedly administered alternately to the same animal, with the result that dilatation of the heart uniformly took place under chloroform, and was as uniformly absent, with an equal or greater degree of anesthesia, when ether was used.

To meet the objection that these results might be in some way due to the opening of the chest, chloroform was in a number of cases given in the ordinary way, and the chest quickly opened, when the heart was found dilated, as in the other experiments.

In three cases cats became suddenly collapsed during the administration of chloroform preliminary to the insertion of the canula, while natural respiration was going on regularly and efficiently. The pulse was found in each case to be imperceptible, and after respiration had gone on for some time the heart was found in each case, on opening the chest, to be contracting so feebly as to be entirely ineffectual in propelling the blood. All the animals were resuscitated by rhythmic compression of the heart with the thumb and finger. As a general rule, however, in death by chloroform, respiration ceased before any such failure of the heart's action took place as to be incompatible with life.

It was found that, with a given proportion of chloroform in the inspired air, changes in the rapidity of respiration had a marked effect upon its absorption. An amount of chloroform that could be given with safety during quiet respiration speedily produced alarming symptoms when the respiration became rapid and deep.

The most effectual way of increasing the blood pressure in the carotid, when it had fallen to a dangerous degree, was found to be firm compression of the abdominal aorta.

The practical bearing of these facts is obvious. The value of such investigations as those that led to their discovery is equally so. Among

the thoughts which they suggest is the question how soon such researches will be carried on with funds contributed by the American Medical Association.—*Jour. Am. Med. Association.*

**THE VENTILATION OF CHURCHES.**—Nowhere have the problems of ventilation been found to be more difficult of solution than in large public buildings. We might say in regard to many, if not most of these, that in this particular matter bad is the best result that has been attained. It must also be admitted that the state of churches generally proves the rule above stated, but not by way of exception. We may well ask, why is this? Surrounded with spacious windows, furnished with ventilating panes, with several doors, and with a high and arched roof, why is it that their atmosphere during times of worship is so often offensively close? In different cases we should probably find different structural deficiencies contributing to this result, with, however, the same consequence in all—defective aeration. One, if not the principal fault in construction in many of the older buildings is the want of outlets, or of a sufficient number of them. Such openings as do exist are better fitted to act as inlets than as exits. In buildings thus constructed a change for the better would be most fittingly inaugurated by the formation of two or more large roof outlets with revolving cowls. The allotment of floor space is also an important consideration. This, however, is as a rule contrived with a reasonable regard for health considerations. It is only in the event of overcrowding that all individual rights are overwhelmed in the common crush, and wholesome breathing air becomes more scarce than standing room. The gallery system, also, if adopted on any considerable scale, is open to adverse criticism. By accommodating more sitters it necessarily increases what we may call the breathing surface, while at the same time it lessens the available air space. If constructed at all, the gallery ought to be of the lightest description compatible with due stability. The correction of the evils we have thus briefly touched upon, and especially the formation of roof outlets to promote the escape of heated and impure air, will go far to obviate such occurrences as

that of ladies fainting in church, which under present conditions is only too common.—*London Lancet.*

**KOCH AND HIS CRITICS.**—In the blame which has in various quarters been freely bestowed on the man who is just at present the most prominent figure in the medical profession, for not at once making all the details of his discovery public, the important circumstance has been ignored that he does not seem to have been altogether a free agent in the matter.

Dr. Koch is a salaried officer of the German Government. The Hygienic Laboratory in which his researches have been carried on is supported by public funds, and the investigations themselves were a part of the work for which he is paid. Under such circumstances it would not be merely politic but eminently fitting that as long as he retains his office he should pay a good deal of regard to the wishes of his official superiors. There have been reports that it was in deference to pressure from that quarter, and against his own judgment, that he made his announcement in the International Medical Congress. However that may be, the Minister of Public Instruction, Gossler, stated in reply to an inquiry made of him in the Prussian Diet that Koch's wish was to publish all the details, but that on account of the difficulty of preparation of the remedy, and the harm that might result from the use of imperfect and irresponsible imitations, he had prevailed upon Koch to deter publication of its nature—a step for which he assumed the entire responsibility.

Of the necessity of such a course probably no one can be a competent judge who is not acquainted with all the reasons which led to the decision. No one can doubt that if the method of preparing the remedy were made public the markets of the world would soon be flooded with the products of competing manufacturers, some of whom might not be able, with the best disposition in the world, to judge as to the quality of their wares. The tests which have been made of various brands of pepsin may serve as an illustration of the varying quality of articles going under the same name. It is of the utmost importance that the





ors given. This train of thought is suggested by the very feeble efforts of our most distinguished and able contemporary, the Medical Times and Register, to claim, in a recent issue, a priority for a man in Philadelphia, whose name is at least unknown to us in the world of bacteriological research and pathological work. It is too silly for any thing, and the paper as well as the man are making themselves the laughing stock of the medical world in doing so.

We note one thing, however, that Koch's discovery has been a godsend to the metropolitan physicians connected with the medical institutions and hospitals. It has given them an opportunity, which they have not been slow to accept, to advertise themselves and the institutions to which they are attached.—*New England Medical Monthly*.

**PROTOPINE—A NEW OPIUM ALKALOID.**—Protopine was first isolated from opium in 1870 by Hesse. It has a formula of  $C_{20}H_{19}O_5$ , and is present in but small amount. Since then its presence has been detected by Eykmann in the *Macleya cordata*, and by Selle in the *Chelidonium majus*, plants which also belong to the family of the Paveracæ.

Dr. Engel has recently made some experiments on cold-blooded animals (frogs), and warm-blooded animals (guinea-pigs, cats, and rabbits), to determine the physiological properties of protopine, and his results, which are summarized in the following statements, are published in the *Gazette Médicale de Paris*, October 11, 1890:

1. In small doses protopine exercises on the frog narcotic effects similar to those produced by other opium alkaloids.

2. In large doses it produces a paralyzing action upon the muscular substance, and on the terminal ramifications of the peripheral nerves.

3. With small or moderate doses reflex action is not abolished, although this occurs when large doses are given.

4. Protopine produces toxic effects in mammals comparable to those produced by camphor, death being produced by a paralysis of the respiratory center.—*Therapeutic Gazette*.

*Editors. American Practitioner and News:*

**KENTUCKY STATE MEDICAL SOCIETY.**—I have just received word from Dr. David Barrow, chairman of the Committee of Arrangements, saying that May 27th, 28th, and 29th have been selected as the dates for holding the next annual session of the Kentucky State Medical Society in the city of Lexington. The committee report the profession in the Bluegrass a unit, full of enthusiasm, and by dint of hard work and with outstretched hands and hearts determined to make the *thirty-sixth* the "banner" session, with the reputation of performing earnest literary professional work and of accomplishing the duties for which it was convened. Yours fraternally,

STEELE BAILEY, M.D.

*Secretary.*

**RISKS OF COCAINE INJECTIONS.**—The Medical Press, November 5, 1890, says that two warning cases are reported from France. In one of them, which occurred at Lille, the patient died, and the dentist who gave the injection was acquitted of neglect, but condemned for practicing medicine without qualification. In the other, which occurred at Paris, the patient was with great difficulty brought round by hypodermic injections of ether. The cocaine injection was also made in this case by a dentist.

In another place the same journal says that the Lille dentist, who was charged with causing the death of a girl by injecting cocaine in order to procure anesthesia, has been sentenced to a fine of fifteen francs for breach of the law regulating the practice of medicine, the judgment indorsing the view that cocaine is an anesthetic which requires to be used with prudence, and can not legally be administered by other than a qualified medical man.—*Medical and Surgical Reporter*.

**A PECULIAR LIBEL SUIT.**—A physician of Buffalo recently brought suit against another for \$25,000 damages for calling him a quack. So that this much used and often abused word is now likely to be defined judicially. The plaintiff had called the defendant in consultation in a case of hernia, which he had treated by electricity. The relations between them became



strained, for the plaintiff says that at a meeting of the County Medical and Surgical Society in the Iroquois hotel, on September 2d, the defendant spoke of him thus:

"The use of electricity is now practiced by a notorious quack of Buffalo for the cure of hernia. This quack pronounced the patient cured of hernia after treating him, and a few days afterward the patient was taken with symptoms of strangulation."

The words were reported and published in the Buffalo Medical and Surgical Journal by the secretary of the meeting. For these words the plaintiff wants \$25,000 damages, and says he will sue the Medical and Surgical Journal, which published the words in its October issue. Both parties in the suit are regular practitioners of medicine.—*New England Medical Monthly*.

**THE INTERNATIONAL CONGRESS.**—The Medical Press gives the following analysis of the Berlin Medical Congress: Seven thousand and fifty-six member cards were sold; 5,561 were visiting medicals; 116 were contributors of papers, etc., in the meeting; 1,379 were ladies' cards. Of the 5,556 medical male members, there were from the provinces of Germany, outside of Berlin alone, 1,157; Austria-Hungary, 257; Great Britain and Ireland, 353; Netherlands, 111; Belgium, 61; Luxemburg, 2; France, 171; Switzerland, 64; Italy, 144; Spain, 40; Portugal, 5; Sweden, 166; Norway, 58; Denmark, 139; Russia, 421; Turkey, 12; Roumania, 32; Bulgaria, 5; Greece, 5; Malta, 2; Monaco, 1; Servia, 2; United States, 623; Canada, 24; Brazil, 12; Chili, 11; Cuba, 4; Trinidad, 1; Mexico, 6; Hayti, 1; others parts of America, 24; Egypt, 8; Cape Colony, 1; other parts of Africa, 5; China, 2; Japan, 22; East Indies, 2; Australia, 7. Those who came after the first day are not included in the above.—*Ibid*.

**CAMPBOR IN FLORIDA.**—According to the Druggists' Circular, October, 1890, the Palatka Herald says that A. A. Beach has shown us specimens of distilled camphor from Florida-grown trees, and in his opinion the product is more profitable than any other business in the

State. It can be distilled in any season of the year, and heat or cold do not affect it. The camphor tree is of very rapid growth. At four years old this tree attained a diameter of four inches and a height of eight feet, with large top and very thick foliage. The specimens shown us were much stronger than the imported article. Little time is required in distilling, the process being very simple.

**LIGATURE OF THE VERTEBRAL ARTERY IN EPILEPSY.**—Dr. Telford Smith relates the following case: An imbecile boy, aged eleven years, had from twenty to thirty epileptic fits a month. The imbecility and epilepsy were both congenital. The left vertebral artery was tied in 1881. Four years after the ligature there was marked mental improvement after careful training, and there were no epileptic fits. They gradually returned, however, and the mental condition relapsed. In 1885 he had 49 fits; in 1888, 231 fits; in 1889, 245 fits; and the mental state was at the time of the report slowly deteriorating.—*Journal of Mental Science*.

A DEATH occurred at Plymouth, England, during the administration of methylene. The lungs were found much congested; ventricles dilated; cardiac tissues soft and pale; kidneys large and congested; liver contracted. Methylene is administered in the Plymouth hospital about four hundred times annually, and it has been five years since a death under anesthesia occurred.—*Times and Register*.

As a reward for Prof. Koch's services in the interests of medical science the Emperor will probably confer a title of nobility upon him. He has already been decorated with the order of the Red Eagle.

#### SPECIAL NOTICE.

We call the attention of our readers to the advertisement of Roberts & Pettit Co., Louisville, Ky., which will be found on another page of this issue. This firm was established forty-five years ago, and enjoys a widespread reputation as a sound, honest, reliable business house. We do not hesitate to endorse their preparations as being all they claim for them.

# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### APHORISMS IN MEDICAL EMERGENCIES.

BY E. J. KEMPF, M. D.

An emergency may be defined as any event which calls for immediate action or remedy.

At any time the doctor may be taken unawares by an unexpected accident or an unforeseen occurrence, and a life may depend on his doing the right thing or in using the proper drug at once. No time is granted him to consult his books or to send for professional counsel. He must rely on his knowledge, his skill, and his memory. He is expected to be calm and collected and to put forth prompt and intelligent action. At times this may prove a trying ordeal to the physician, and it is well that he prepare himself beforehand to systematize his knowledge so that memory do not fail him. I present to your attention the more frequent medical emergencies and the modern way of treating them.

So that my paper may be of practical use, it is put up in the form of aphorisms and in alphabetical order.

1. *Abortion, Inevitable.* If the hemorrhage is profuse before dilatation of the os occurs, control the bleeding by vaginal tampons of borated cotton. Remove in eight hours, and reapply if required. Often when the first one is removed the ovum or fetus may be found extruded, when the urgent symptoms may subside. Deciduous membrane in the earlier months, the placenta in the later, are apt to remain behind. (Norris, Syllabus Obstetrical Lectures, p. 105.) If

there is hemorrhage or fever remove the uterine contents at once, by the finger, the curette, or Hoening's method of expression; after which give an intra-uterine douche. If os is not sufficiently dilated and symptoms are urgent, dilate the os by means of any dilator you have.

2. *After-pains.* If due to clots or to retained shreds of membrane or placenta, remove them by expression (Credé's method), or by inserting the hand into the uterus. If this is contra-indicated, use the dull curette. Give ergot internally or hypodermically. If due to malaria, give quinine. If due to flatus, use turpentine stupes. If due to nervousness, give morphine in camphor-water.

3. *Anesthetics, Accident in Giving.* First, the use of any anesthetic is attended with appreciable risk, and no care will prevent occasional loss of life; second, chloroform acts much more promptly and powerfully than ether, both upon the respiratory center and upon the heart; third, the action of chloroform is capable of arresting primarily either respiration or cardiac action, but usually abolishes both functions at about the same time; fourth, the action of chloroform is more permanent than that of ether; fifth, ether usually acts more powerfully upon the respiration than upon the circulation, but occasionally is a cardiac paralyzant, and may cause death by cardiac arrest while yet respirations are fully maintained. (Wood's Medical Record, August 16, 1890.)

Give tincture of digitalis hypodermically; draw out the tongue and see that respiration is not mechanically impeded; invert the patient quickly and temporarily; use forced respiration promptly; apply external warmth and stimulation of the surface, and above all avoid the exhibition of alcohol.

4. *Angina Pectoris* comes on with abrupt suddenness and is characterized by intense pain

in some part of the precordial region, which is described as shooting, plunging, tearing, aching, gnawing, sickening, or burning. This is accompanied by a feeling of oppression or constriction across the chest, attended with a sense of suffocation. The face is pale, sunken, and covered with sweat; the expression is indicative of great anxiety, alarm, and fear of impending death which the patient feels—once seen never to be forgotten.

Inhalation of chloroform, or of a few drops of nitrite of amyl,  $\frac{1}{10}$  gr. of nitro-glycerine internally, placing the feet in hot water, mustard to the precordial region, dry cups between the shoulders, hypodermic injections of morphine and atropine, administration of stimulants and anodynes are the remedies to be used.

5. *Apoplexy* literally means a stupefaction. It is characterized by complete loss of volition, perception, sensation, and motion. It is generally due to cerebral hemorrhage, but may be caused by congestion, serous effusion, or bursting of an abscess. In apoplexy the patient lies motionless, with a turgid, livid face, the cheeks flaccid, the pulse slow, full, and hard—the arteries of the neck pulsate visibly; respiration slow, labored, and accompanied with stertor; paralysis (hemiplegia), and the patient may be comatose. There may be other symptoms present.

Treatment: Place the patient in bed, with head and shoulders elevated. If pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more. Elaterine (gr.  $\frac{1}{6}$ ) or a couple of drops of croton oil in a teaspoonful of sweet oil or glycerine should be given, and cold applied to the head by means of an ice-bag. Blistering is of less service. (Tyson, University Medical Magazine, January, 1890.)

6. *Asphyxia*. Causes: (1) Compression of chest; (2) compression of lungs by air in pleura; (3) traumatic compression of trachea, as in garroting; (4) foreign body in air-passages; (5) immersion in some fluid, including (a) pressure by aneurism, edema glottidis, accumulation of mucus, etc., (b) paralysis of respiratory muscles. Hanging may be classed with Cause 3. Appearances: Lividity, swelling of face, perhaps bleeding from nose and mouth; pupils, at first contracted, dilate to their maxi-

mum; absence of the respiratory murmur in the chest, abundance of mucous râles, diminution of sensibility; heart ceases to beat last.

Treatment: In drowning, hold the patient's head downward for a few seconds. In hanging or choking, bleed from jugular. If there is obstruction to passage of air through mouth or nose, open trachea. Artificial respiration at once, and to be continued. Then, friction, warmth, warm bath (100°), ammonia to nostrils, galvanizing of phrenic nerve. (C. B. Keetly.)

Artificial respiration: Free body from clothing that binds neck, chest, or waist; turn over on face for a moment, and remove any thing from the mouth by finger. Lay body on back on a plane inclined slightly toward feet, cushion under the shoulders; draw tongue well forward out of mouth. Place yourself on knees behind head of patient, grasp arms just above elbows and draw upward till they nearly meet above head, there retain them for two seconds, then depress them again and press them firmly for two seconds against the sides, combined, if possible, with pressure on lower part of sternum; repeat about sixteen times per minute. Continue for a long time, even if pulse has ceased to beat. (Medical News Visiting List.)

7. *Asthma, Spasmodic*, is a dyspnea caused by a spasm of the bronchial muscles which surround the smaller air-tubes, with more or less congestion of the bronchial mucous membrane (John C. Thorowgood, Wood's Monographs, 1890), and characterized by a paroxysm of difficult breathing, accompanied by a wheezing sound, a sense of constriction in the thorax, great anxiety, and a difficult cough. Sibilant râles are noticed and a fixed condition of the walls of the chest. It looks as if the patient can get plenty of air, but can't get rid of it.

Treatment, palliative. Hypodermic injection of atropia injected deeply into the nape of the neck. Inhalation of smoke of the stramonium leaves. The fluid extract of nux vomica internally; also alcohol, ether, chloral, and opium. W. H. Thomson, Ref. Hand-book, vol. 1, p. 398.)

Inhalation of chloroform cautiously administered gives prompt relief to the asthmatic fit. (John C. Thorowgood.)



8. *Colic, Gall.* A sudden, intense, excruciating, constricting, griping, tearing, boring, or burning pain over the abdomen, round to the side of the back or to the right shoulder. The patient is doubled up and rolls about. The attack is accompanied with much exhaustion, signs of collapse, a distressed and anxious countenance, faintness, which may end in syncope or in cramps of the abdominal muscles.

Treatment: Morphine hypodermically, inhalations of chloroform, hot applications to abdomen.

9. *Convulsions.* The general convulsions of eclampsia, epilepsy, hysteria, and hystero-epilepsy have common features. The attacks come on suddenly, sometimes with an immediate aura. The muscular movements are irregular and inco-ordinated. Consciousness, sensibility, and the reflexes are generally abolished. The face is at first blanched, but soon becomes hyperemic. Respiration is disturbed, and the heart beats slower, then faster, then normal.

Convulsions in infancy are essential; in childhood are meningitic, febrile, or epileptic; in women are hysterical; in maturity or old age are symptomatic of syphilis or structural lesions. (Ranney, Lectures on Nervous Disease.)

The general principles governing the treatment of convulsions are nearly the same for all. Remove the irritations if possible. In epilepsy the patient should have a clothes-pin or piece of wood placed between the teeth to prevent biting lips or tongue. The patient is then treated as in syncope. In children, if the convulsions are reflex from indigestible food, worms, etc., give an aperient after the fit, or an enema of soapsuds; if they are febrile, give antipyrin, bathe the child in warm water, put cold cloths to the head; if they are meningitic, antipyrin or the bromides are indicated. If convulsions are due to Bright's disease, bleed, give inhalation of chloroform, rectal injections of chloral, pilocarpin ( $\frac{1}{4}$  gr.) hypodermically, and hot baths. In hysterical convulsions galvanism or faradism is good. (Tyson, University Medical Magazine.)

10. *Coma*, a complete absence of conscious sensation.

Symptomatology: Coma due to compres-

sion, pupils widely dilated and sluggish, pulse slow, respirations slow, involuntary feces, retention of urine. Uremic coma—Biting of tongue, rolling of eyes, foaming at the mouth, face deadly pale, pupils dilated, limbs sometimes edematous. Diabetic coma—Dyspneic respiration, frequent small and weak pulse, and no edema. Coma may follow an epileptic fit, or may be brought on by opium poisoning, alcohol, carbolic acid, etc.

Treatment: Dark room, head high, head shaved, head cool, low diet; bowels to act with croton oil. If due to compression, antiseptic trephining; if due to uremia, pilocarpine and hot baths.

11. *Dyspnea*, the sensation of want of breath, due to congestion of the pulmonary capillaries, brought on by the supply of air being cut off from healthy air-vesicles. The respirations are shallow, the breathing is hurried, and the pause is abolished. Symptoms of asphyxia become gradually developed, the lips grow purplish, the nose, the ears, and the finger nails have a dusky hue, and the extremities are cold. Dyspnea is brought on by muscular exertion, consolidation of pneumonia, edema glottidis, laryngitis, croup, bronchitis, asthma, intra-laryngeal growths, foreign bodies in larynx, trachea, or bronchi, emphysema, phthisis, pain, as in pleurodynia and in pleurisy, and cardiac troubles.

Treatment: In dyspnea due to pain, to cardiac troubles, to asthma, morphine and atropine given hypodermically is the most reliable remedy. Inhalation of chloroform is often of benefit. Stimulants and anodynes often prove of service. In the dyspnea of bronchitis, laryngitis, croup, and edema glottidis, the inhalation of steam medicated with lime, bromide of potash, or listerine, administered with the steam atomizer, is indicated. Intubation or tracheotomy may become necessary, especially if the dyspnea is due to intra-laryngeal growths or foreign bodies, to croup, to edema glottidis, or to laryngitis. In the dyspnea due to phthisis, aromatic spirits of ammonia with a little morphine may give relief, especially if accompanied by applications of mustard plasters. In dyspnea due to pneumonic consolidation the hypodermic injection of ergot, warm

poultices to the chest, and hot-water bottles to the feet should be tried.

12. *Heat-stroke* may be caused by heat of any kind; is sometimes called sun-stroke, especially when due to the heat of the rays of the sun; is characterized by vertigo, headache, gradual accession of listlessness with a desire to lie down. Sudden and complete insensibility may come on, without the power of sensation or motion, rapid breathing, convulsions, and coma. Death is either by syncope, apnea, or a combination of the two.

Treatment: Endeavor to reduce the bodily temperature by removing the clothes, sprinkle the patient with water, cold cloths to head, hot cloths to feet. Antipyrin may be given. Bleeding may be resorted to in robust subjects. After the high temperature is brought down give alcohol and diffusible stimulants, hypodermically if necessary.

13. *Hemorrhages. Pulmonary Hemorrhage:* If severe, raise the thorax, and quiet the patient with an opiate if necessary. Give fifteen grains of gallic acid every fifteen minutes, and from five to ten grains of ergotin hypodermically two or three times a day. Ice-bags may be applied to the chest, and as a last resort a ligature may be thrown around the larger limbs, cutting off the return of blood by the veins, and thus withdrawing blood from the lungs. (Tyson.)

*Hemorrhage from the Stomach or the Bowels:* If from cirrhosis it is a capillary oozing, and will generally stop of itself. May be controlled by ten or fifteen grains of tannic acid. If from typhoid fever, treat on the same plan as the pulmonary hemorrhage. If from ulcer in the stomach, treat on the same plan as the pulmonary hemorrhage.

14. *Hiccough*—a clonic spasm of the diaphragm, accompanied by a quick inspiratory effort, interrupted by a closure of glottis, followed by a short expiration—is uncontrollable if occurring in advanced fatal diseases.

Treatment: Acid drinks, cold douches, ether or chloroform internally, externally, or by inhalation, musk, opium, and antispasmodics.

15. *Hysteria.* (Ranney.) The diagnosis of hysteria is almost invariably made by the exclusion of more serious conditions which the

symptoms exhibited by the patient might lead the physician to strongly suspect. The convulsive types form the subject of this sketch.

Treatment: The paroxysms are controlled by the inhalation of ether or chloroform. If this is contra-indicated give monobromide of camphor. If this is not at hand, give musk, valerian, assafetida, or the bromides. Hypodermic morphine and atropine are also beneficial in convulsive seizures.

16. *Lightning-stroke.* In many cases death is instantaneous. In other cases the external injuries consist of burns, contusions, wounds, or fractures. These are to be treated according to circumstances. Ruptures of internal organs may be produced, and hemorrhages from nose, ear, and mouth may occur. The loss of consciousness may be temporary or continue until death. Convulsive movements are not uncommon. After a severe stroke the patient usually sinks rapidly into a state of collapse. The skin is pale and cool; the pulse rapid and feeble, sometimes irregular, the respiration hurried and labored, the eyes fixed, and the pupils dilated. Sometimes, however, the pulse is slow, and rarely the pupils are contracted. Vomiting and nausea sometimes occur. Paralysis of all kinds are found, sometimes involving all the limbs, sometimes only some peripheral nerve; paralysis of the third nerve is not rare. Dysphagia, aphonia, and hiccough are rare. Amblyopia or amaurosis is not uncommon, and often temporary. Deafness is a frequent symptom, often due to perforation of the membrana tympani.

A certain amount of paralysis, deafness, and at times some mental trouble, may remain permanently.

In women who are struck during the menstrual period menstruation may cease. In women who are pregnant abortion or premature delivery may or may not occur.

Treat as you would a case of shock.

17. *Neuralgic Pains*, such as intercostal neuralgia, sciatica, etc., may become very urgent on account of the great pain and the mental distress. They are best treated by a hypodermic injection of morphine and atropine at once, to be followed by other treatment as indicated by the symptoms.

18. *Palpitations* of the heart due to functional troubles are best treated during the paroxysms by the internal administration of digitalis, stimulants, and anodynes. If due to hysteria, tincture of valerian is good. A hypodermic injection of morphine and atropine often gives quickest relief.

19. *Pernicious Fevers* should be treated by hypodermic injections of quinine in large doses. Other symptoms should be treated according to circumstances.

20. *Placenta Previa*. The placenta is said to be previa when it is attached to any portion of the lower uterine segment. Varieties: Central, partial, marginal, lateral.

Treatment: Prior to seventh month, expectant. After seventh month, induction of premature labor by forced dilatation of cervix and combined version. The breech should be brought down, as it controls the hemorrhage and does not cut off the blood supply to the fetus. Use the right hand internally, as the smallest segment of the placenta is usually on the left side.

In the central variety perforate the placenta if necessary. (Norris.)

21. *Puerperal Convulsions*. (Norris.) Due to hysteria, epilepsy, tumors of the brain, meningitis, profound anemia following *post-partum* hemorrhage, apoplexy, or reflex disturbances.

Treatment: Preventive—restrict to a milk diet, give diuretics, cathartics to prevent constipation; avoid the taking of colds. Curative—if the os is dilated, terminate the labor with forceps or by version. If the convulsions occur early, and the os is not dilated, wait until partial dilatation occurs, and complete the delivery by combined version and extraction. During the spasms, inhalation of chloroform. In the intervals, morphine, elaterium, croton oil, venesection, veratrum viride, an enema of the bromide of potash, and hydrate of chloral, or a hot bath, 100° F. or more.

22. *Post-Partum Hemorrhage*. (Norris.)

Treatment: Prophylactic—as soon as head is born inject into thigh a syringe of ergot, properly manipulate the uterus and apply binder. Curative—always have ready, water 120°, empty basin, vinegar, ice, clean handkerchief, ergot, hypodermic syringe.

The indications are: (1) Control the hemorrhage, and (2) treat the after-condition.

The first indication is met by the following in the order given:

External stimulation of uterus.

Carry the other hand into the uterus and remove any clots, placenta, etc.

Ice internally and externally.

Handkerchief soaked in vinegar squeezed at the fundus.

Hot water.

Electricity.

Intra-uterine tampon of iodoform gauze.

The second indication calls for:

Hypodermic ether.

An enema of hot water.

Milk, whi-ky, coffee frequently in small doses.

Transfusion of salt water.

23. *Poisoning*.\* Provoke vomiting by giving warm water with or without ground mustard (a tablespoonful to a pint of water), or ipecac (a teaspoonful of the powder or a tablespoonful of the syrup), or a finger may be thrust down the throat. It is best to give large quantities (that is, a pint at a time) of warm water whenever vomiting is to be excited.

Give bland liquids, such as milk, raw eggs, some sort of oil, gruel, etc.

Give stimulants, tea, coffee, whisky, wine, hartshorn and water (a teaspoonful in a tea-cupful of water at a dose).

Give the proper antidote to the poison taken. It is not always necessary to wait for it to dissolve, but it may be stirred in any fluid at hand (except oil) and swallowed immediately.

Alkaline antidotes most likely to be at hand are hartshorn and water, soap and water, lime, whiting, soda, chalk, tooth-powder, plaster, whitewash, magnesia, and wood ashes. Acid antidotes most likely accessible are vinegar and lemon juice.

In poisoning from gases, stimulate, give fresh air, and use artificial respiration.

In poisoning from decayed meat or vegetables, provoke vomiting, give a purgative, and give powdered charcoal.

Keep in mind that the antidote for nitrate of silver is strong salt and water; for iodine, starch and water; phosphorus, sulphate of cop-

\*After the Medical News Visiting List.



per; acetate of lead, Epsom salts; arsenic, hydrated oxide of iron; carbolic acid, Epsom salts; opium and chloral, *keep up the breathing*; strychnine, chloral, mercury, and antimony, an infusion containing tannic acid; copper salts, albumen.

24. *Shock*. Signs: pallor, coldness, weakness, even amounting to utter prostration. Consciousness may or may not be seriously affected. Temperature sinks from  $1^{\circ}$  to  $4^{\circ}$  or more. Pulse is thread-like; respiration, sighing; nausea, vomiting. Patient may be noisy, delirious, or quiet. Shock may endure for many hours and at last prove fatal, or death may result almost instantaneously.

Treatment: Warmth, hot-water bottle to feet, flanks, and epigastrium, warm affusion to the head; horizontal position, frictions, stimulants; brandy, ammonia, galvanism to precordia. In shock from hemorrhage, treat the hemorrhage. When reaction has commenced food must be given in small quantities frequently repeated. In a case of shock from injuries to the abdominal viscera the writer gave atropine and morphine hypodermically with great benefit.

25. *Strangury*. Vesical, hypodermic injection of morphine, to be followed by other remedies; rectal enemata of starch-water and laudanum, to be followed by a hot sitz-bath.

26. *Syncope*. The cardiac failure is commonly referable to causes, mental or physical, operating through the nervous system; the heart becomes more or less completely paralyzed, and contracts feebly or not at all on its contents.

Treatment: Place the patient in a horizontal position, loosen the clothing around the neck and elsewhere, and give the patient fresh air; ammonia to the nostrils, ammonia, ether, or alcohol by the mouth, turpentine by enema, cold water to the face, sinapisms to the epigastrium and limbs. Frictions, galvanism, and artificial respiration may become indicated. Maintain the bodily temperature, keep patient quiet, and give him nourishment if the syncope assumes a chronic form.

27. *Vomiting*. In acute cases of vomiting it may be well to suspend all food for a time. Then when food is given it is well to commence with a small quantity of the blandest food,

milk being one of the best. Among the remedies for vomiting the following are the best: Cracked ice, to be swallowed in small morsels, effervescent natural waters, counter-irritation over the stomach by sinapisms, reflex irritation over the spine in the cervical region by blisters. Dilute hydrocyanic acid, 1 to 4 minims hourly; wine of ipecac, 1 minim every hour; calomel,  $\frac{1}{10}$  grain on the tongue every hour; Fowler's solution, 1 minim every hour; morphine,  $\frac{1}{10}$  grain on the tongue every hour; bismuth subnitrate, 5 to 10 grains, and bicarbonate of soda, 5 to 10 grains.

In vomiting due to cerebral and peripheral conditions an attempt should be made, if possible, to remove the cause. (Withington.)

The physician should have an emergency case handy, which ought to contain a hypodermic syringe, a stomach-tube, a catheter (Nela-ton's), hypodermic tablets (morphine,  $\frac{1}{8}$  grain, atropine,  $\frac{1}{200}$  grain, pilocarpin,  $\frac{1}{16}$  grain, nitro-glycerine,  $\frac{1}{100}$  grain), and the following drugs: Epsom salts, dialysed iron, gallic acid, aromatic spirits ammonia, nitrate amyl, ergot (fluid extract), digitalis (tincture), spirits turpentine, whisky, mustard (powdered), croton oil, chloroform, ether, antipyrin, bromide potash, chloral hydrate, quinine sulphate, sulphate copper, and aqua ammonia.

Other remedies may be added by the physician to the contents of his emergency case, as he thinks fit. Parke, Davis & Co., of Detroit, Mich., furnish an emergency case at ten dollars. It is very complete, and the handiest case I know of.

JASPER, IND.

## TUBERCULAR PERITONITIS.\*

BY JOHN G. CECIL, M. D.

Case: M. B., white, age thirty-eight. Family history indicating strong tubercular tendency: her father and a sister died of consumption, a brother living has the same disease. Entered City Hospital November 16, 1888, complaining of continuous pain in abdomen, nausea, vomiting, obstinate constipation, anorexia, tympanites, suppression of menses, and profuse muco-purulent leucorrhœa.

\* Read before the Medical-Chirurgical Society of Louisville.

Urinalysis showed no disturbance of renal function. Temperature ranged from normal to  $102^{\circ}$ , pulse and respiration varying in proportion. Diagnosis of ovaritis and pelvic peritonitis had been given; treatment had been directed mainly toward correcting the alimentary disturbances, with morphia when necessary to control pain, turpentine stupes, and hot water vaginal douches. She stated that previous to admission to hospital she had suffered a severe flooding, for which a medicine not known to her had been given, which caused sudden stoppage of the flow. Just what influence this treatment had in the causation of her disease could not be ascertained.

On December 9, 1888, she was transferred to my service. From this date to 24th of same month her temperature ranged in the morning from  $98.4^{\circ}$  to  $100.2^{\circ}$ , in the evening from  $99^{\circ}$  to  $101^{\circ}$ ; pulse from 74 to 100, and respiration from 26 to 28. Bowels were obstinately constipated, tympanitic and painful, nausea and vomiting persistent, considerable pain referred to back and shoulders. Medical treatment proved of little effect. This condition remained practically unchanged for about seven weeks.

On January 8, 1889, the abdominal cavity was opened for diagnostic purpose. The section was made under strict antiseptis. The cut in the median line was four inches long, beginning two inches below the umbilicus, the opening into the peritoneum being about two and one half inches in length. The cavity was thoroughly explored; everywhere there was marked evidence of inflammation. The peritoneum was thickened, congested, and studded with miliary tubercles varying in size from a small bird-shot to a buckshot. The intestines were matted together and everywhere adherent. Uterus was fixed in normal position, ovaries and tubes were not enlarged, but firmly bound down by plastic bands. The cavity was douched with a hot bichloride solution, 1 to 2,000, and this was immediately followed by a copious douche of hot water. No fluid was observed in the cavity. A glass drainage-tube was inserted into Douglas' *cul-de-sac* and brought out of the lower angle of the wound. The cut was closed with silk sutures and dressed antiseptically. No fluid of any consequence was taken from

the tube, which was removed on the fourth day. The nausea and constipation persisted after the operation for a week or ten days, but finally sub-sided. The temperature never rose above  $100^{\circ}$ , or the pulse above 104. The dressing was renewed and the sutures removed on the sixth day. The wound healed promptly. She sat up on the fifteenth day. The bowels continued sluggish, with considerable gaseous distension. She made a tedious, but apparently a complete recovery, and left the hospital for her home in a distant part of the State. All efforts to communicate with her since then have failed.

This, in brief, is the history of a single case, in itself of no especially great interest, but bringing up a subject worthy of your intelligent consideration.

In reflecting upon the case reported I have concluded that a drainage-tube was not needed and should not have been introduced; it simply retarded the prompt healing of the wound, and under similar conditions I would advise against the tube. When there are purulent accumulations or danger of hemorrhage, drainage should be established. One other procedure in the management of this case will perhaps be criticised: that was douching the cavity with a bichloride solution as strong as 1 to 2,000. Laparotomists of to-day have as a rule abandoned the use of mercurial douches, especially in cavities. A sufficient number of cases of poisoning from their use have been recorded to inspire a wholesome fear of such a possibility. Yet who can say that the use of this solution in this case did not exert a beneficent influence? Certainly when followed immediately by flushing with large quantities of hot water the danger was reduced to a minimum.

The diagnosis of tubercular disease of the peritoneum is extremely uncertain. The best that can be claimed at the present day is to arrive at an opinion by exclusion. The majority of recorded cases have diagnosed either by exploratory incisions, or by operations undertaken for something else. We may reasonably expect, as work in this line extends, some better means of differential diagnosis will be established. The results obtained from abdominal section in tubercular affections



of the peritoneum are surprisingly good. Beginning with the first recorded case, that of Sir Spencer Wells in 1862, the rule is for recovery to follow, and in many cases permanent cure has been obtained, the patient being well after many years. The most important communication of recent date on this subject is that of Kümmel, of Hamburg, at the 1888 meeting of the Congress of Surgeons at Berlin. "His report embraced the record of forty cases, with two deaths as the direct result of the operation. Of the remainder the duration of the cure varied from a few months to twenty-five years. . . . As a rule the disease was local in character, general tuberculosis rarely co-existing and in nowise being affected by the operation upon the abdomen. These conditions corroborated the views expressed by König that peritoneal tuberculosis is a local affection which can be relieved by local treatment in the same manner as tuberculosis of bones and joints."

No one, to my knowledge, has yet offered a satisfactory explanation as to how this affection is cured by the operation. The only one that has come to my eye is that offered by Dr. Mansfelde, of Ashland, Nebraska, and accepted by Dr. Van DeWalker in a paper read at the American Medical Association three years ago. "He referred to the fact that in chronic hyperemia of the lungs, caused by some disease of the heart, tuberculosis is very seldom found to be present. He also cited the 'clinical fact that whenever a cavity is cured, outside of a few instances of calcareous degeneration, the greater number of cases are cured by fibroid thickening of the surroundings of the tubercle cavity, thus stopping the progress.' By the operation of laparotomy in tuberculosis of the peritoneum there is produced the same condition which occurs in cases of progressive heart disease, namely, hyperemia and consequent strangulation of the existing growth on the surface of the peritoneum."

Continued.

DR. G. B. PERRY, one of the oldest practicing physicians in Brooklyn, died suddenly December 30, 1890, at his residence, 627 Bedford Avenue. He was born at Hopkinton, R. I., in 1826.

## Reviews and Bibliography.

**A Treatise on Neuralgia.** By E. P. Howe, M.D. 153 pp. Boston, Mass.: George S. Davis. 1890.

This work does not claim to be the outcome of the author's personal experience, a very large number of authorities having been drawn from both in regard to pathology and treatment. This is carried to such an extent that to many it might become wearisome. There are too many men writing these days and giving opinions for one to care much what any particular person thinks, if he does not give his reasons for the faith that is in him. Principles, of course, every one would prefer; theories, in the high sense the true disciple of science uses the term, are acceptable; hypotheses are tolerable; but opinions are too plentiful and too cheap to be grateful for. One thing we have to be greatly thankful to the author for, he does not devote his pages to reports of individual cases treated by himself and all cured, as is done by so many men who write books without dread of the fate of Ananias before their eyes.

The author in the body of the work is perhaps overlenient to reports of treatment, but makes amends in his conclusion. Here he says: "The medical student and the junior practitioner who know little of neuralgias except what they have learned in books may imagine, from the above formidable list of remedies, that with such a therapeutic arsenal they may easily triumph over every form of pain. Alas! how soon they will find their mistake." And well might be given this precaution after quoting one physician who had given relief with electricity in every case of migraine, and Chauvit's article on nerve stretching, in which thirty complete cures, twelve cases of marked amelioration, and only ten failures was the report of the result of treatment in fifty-two cases, the total reported up to that time. Between those who report what they don't see, and those who don't report what they see, progressive medicine is encumbered with many a clog.

This is also one of the numbers of the Physician's Library series, and while not strikingly perfect in arrangement, nor classic in style, no one who reads it will regret having done so.

D. T. S.



**A Compend of Human Anatomy**, including the Anatomy of the Viscera. By SAMUEL O. L. POTTER, M. A., M. D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco. Fifth edition, revised and enlarged. With one hundred and seventeen wood engravings. 315 pp. Philadelphia: P. Blakiston, Son & Co. 1890.

Among the distinctly helpful aids to study and review the quiz compend has in the last few years taken a position in the very lead. "Preserve me from the man of one book," was the remark of a prudent man in describing the dangerous equipments of antagonists. Like all other figures of speech, it will doubtless bear a little elaboration. But undoubtedly the man who runs over books, even many books, and throws them aside, will neither be a useful friend in the exercise of his craft nor a dangerous antagonist in controversy. But a representative book must be reviewed every now and then, even if it is only to run over the preface. Such a book is supplied in excellent form by the quiz compend. In the particular line to which it belongs, and as one of the pioneers, this work of the indefatigable Dr. Potter stands in the list of the very best. This is particularly conspicuous in view of the many failures to render the subject of anatomy attractive when presented in compends.

D. T. S.

**Syphilis of the Nervous System.** By H. C. WOOD, M. D., LL. D. 135 pp. Detroit, Mich.: George S. Davis. 1889.

The special advantage claimed for this work by its author is that it is largely the outgrowth of his own personal experience in practice. If it were a compilation only, the name of Dr. Wood would be a guarantee of high excellence, while as the outcome of his personal experience it would at once be classed in the first rank of authority. We have seen nowhere so clear and connected an arrangement of the known facts relating to nervous syphilis. There are many points that would well repay extensive consideration, but it would be really difficult to begin selection and not be puzzled as to where to place the limit. The volume is one of the numbers of the Physician's Leisure Library, and does credit to the series.

D. T. S.

**A Manual of Instruction for Giving Swedish Movement and Massage Treatment.** By Prof. HARLVIG NISSEN, Director of the Swedish Health Institute, Washington, D. C. With twenty-nine wood engravings. 128 pp. Price, \$1. Philadelphia and London: F. A. Davis, Publisher. 1889.

Believing that a treatise was desirable giving information how to apply the Swedish movement cure in different cases, the author has presented this as a practical hand-book describing the most useful movements. Prescriptions are also given for their use in those cases where they are most likely to be applied successfully in the sick-room and without any apparatus. It is certainly a very attractive little work, and what with the clear explanations and the numerous wood-cut illustrations can not fail of being most satisfactory to all those who would become familiar with the too much neglected method of treatment to which it relates.

D. T. S.

## Correspondence.

### LETTER FROM GERMANY.

The following further communication from Prof. Koch appeared in the *Deutsche Medicinische Wochenschrift* of January 15th:

Since my communication of two months ago concerning my researches in the new treatment for tuberculosis a great many doctors have received supplies of the medicine, and are in position from their own researches to make communications regarding its peculiarities. In so far as I have examined the publications that have appeared, and also the letter communications sent to me, my statements appear to be fully confirmed. That the medicine has a specific influence on tuberculous tissue, and is therefore a very fine and sure reagent for the recognition of the presence of the tuberculous process and for diagnosis in doubtful cases, all seem to be of one mind. Also, despite the proportionally short time the treatment has been used, the most report in many cases a greater or less improvement. In not a few cases, as has been personally reported to me, even a complete cure has been reached. Only very exceptionally is it contended not only that the medicine

can be dangerous in cases of very far advanced phthisis, to which all will agree, but that it increases the tuberculous process, and is in itself hurtful. In the past month and a half I have myself had the opportunity to observe further the working of the remedy on one hundred and fifty patients in the Meabit Hospital with tuberculosis of all kinds, and I can only say that all that I have since seen agrees with my previous observations, and that I have nothing to change.\*

So long as it was only necessary to prove the correctness of my statement, it was not imperative to know what the remedy contained and whence it has its origin. On the contrary, the less that was known of the medicine itself the more unembarrassed would be the examination into its effects. But now that the examination into its working has been made in sufficient quantity, as it seems to me, and the importance of the remedy is submitted to, the next problem is to study out the reach of its use, and to employ, where possible, the principles which its discovery grounds to other diseases. This problem demands, as a matter of course, the full acquaintance with the nature of the remedy, and therefore I consider the time to have come for the necessary statements to be made, which shall be done in the following:

Before I speak of the medium itself, for the sake of giving a better understanding of its method of working, I will indicate quite shortly the way in which I came to its discovery. If a healthy guinea-pig is injected with a pure culture of the tubercle bacillus, as a rule the injection wound closes and appears in the first few days to heal. Not until after ten to fourteen days appears a hard nodule, which soon breaks out, and remains as an ulcerating sore until the death of the animal. But it is quite different when the injection is made in a guinea-pig already infected. Animals injected four to six weeks before are best suited for this demonstration. In such an animal the puncture wound also closes in the beginning, but no nodule is formed; but on the next or the second day a

peculiar change occurs at the place of injection. This becomes hard and takes on a dark color, and this is confined not to the point of injection alone, but broadens out into the surrounding parts till a diameter of 0.5 to 1 centimeter is reached. In the next few days it appears even more clearly that the so-changed skin is necrotic, and it is finally cast off and there remains a smooth ulceration behind, which generally quickly and lastingly heals without the neighboring lymph glands becoming infected. Injected tubercle bacilli have a very different effect on the skin of a healthy guinea-pig and on the skin of a tuberculous guinea-pig. This remarkable effect occurs not only from living bacilli, but also from those that have been killed by exposure to a low temperature for a considerable time, by heat at the boiling point, or by certain chemicals as I at first tried.

After this peculiar fact was found I pursued the investigation in all directions, and it then appeared further that deadened pure cultures of tubercle bacilli, after being macerated in water, can be injected under the skin of healthy guinea-pigs in large quantities without producing any thing more than a local formation of pus.\* Infected guinea pigs, on the other hand, were killed by the injection of small quantities of such macerated cultures, and, indeed, according to the size of the dose, in from six to forty-eight hours. A dose not sufficient to kill the animal was yet sufficient to produce a considerable necrosis of the skin at the point of injection. If the maceration was now further diluted, so that it had a barely perceptible cloudy appearance, the injected animals remained living, and there occurred, when the injections were made with intervals of one or two days, very quickly a noticeable improvement in the condition of the animal. The ulcerating injection-wound became smaller and finally scarred over, which without treatment of this kind is never the case; the swollen lymph gland became smaller; the physical condition improved, and the disease process, when the animal was not already so far gone as to die from exhaustion, came to a standstill.

Therein was given the ground principle for

\*REMARK.—As concerns the permanence of the cure I will here say that two of the patients, whom I pronounced in a former communication practically cured, have come into the Meabit for further observation. Since three months no bacilli have appeared in the sputum, and the physical symptoms have gradually entirely disappeared.

\*THIS sort of injection belongs to the simplest and safest of those remedies which can produce pus without the presence of living bacteria.

a treatment for tuberculosis. Against the practical use of such a maceration, however, was the circumstance that at the place of injection the deadened bacilli were not absorbed or otherwise caused to disappear, but remained for a long time unchanged, giving rise to greater or less collections of pus.

It appeared that the substance which worked in a specific way on the tuberculous process must be a soluble substance, which, carried off by the body fluids, came tolerably quickly in the lymph channels, while that which produced pus apparently remained in the bacilli or came only very slowly in solution. So it became necessary to extract the specific substance from the bacilli. This problem gave a great deal of trouble, but I finally succeeded in extracting the substance by means of a forty to fifty-per cent glycerine solution. With the fluid so obtained have been made the further experiments on animals, and finally on man.

The medium with which the new treatment against tuberculosis is carried out, is a glycerine extract of a pure culture of tubercle bacilli. In the simple extract there go out of the tubercle bacilli, as a matter of course, together with the specific substance, a certain number of mineral salts, color substances, and other unknown extract substances. A few of these substances are readily separated. The specific substance is insoluble in absolute alcohol, by means of which the substance, not pure but always combined with other insoluble extract substances, can be obtained. The color substance can also be removed, so that it is possible to obtain from the extract a colorless dry substance containing the specific substance in a very much more concentrated form than the fluid glycerine extract. For practice, however, this refining offers no advantages, because the substances eliminated are indifferent for the human organism, the process only serving to render the medium more costly.

As to the nature of the specific substance, at present only provisional conjecture can be made. It appears to me to be a derivative from albumen, and to be nearly related thereto, but does not belong to the group of so called tox-albumens, as it withstands high temperatures and in the dialyser goes readily and

quickly through the membrane. The quantity of this substance in the extract is very small. I compute it at one per cent. If I am not mistaken we have here to do with a substance whose specific action on tuberculous organisms is far in excess of the action of the most powerful of the known medicinal agents.

As to the way in which the substance acts on tuberculous tissues, there are as a matter of course several hypotheses to be offered. According to my opinion, without intending to assert, the best explanation is the following: The tubercle bacilli produce by their own growth in the tissues as well as in the culture-tubes certain substances which influence the neighboring living elements, the cells, in different ways, and to be sure disadvantageously. So is produced a substance which in certain concentration kills living protoplasm, and further changes it into the condition named by Weigert coagulation necrosis. In the necrotic tissue the bacillus finds a condition so unfavorable that further growth is impossible, and he is even brought to death. In this way I explain the striking fact that in freshly infected tuberculous organs, for instance in the spleen or liver of a guinea-pig, studded throughout with gray nodules, great quantities of bacilli are to be found, while on the other hand in the greatly enlarged spleen, consisting almost entirely of the white coagulation-necrotic tissue, there are very few bacilli or none at all to be found. Therefore the single bacillus is not able to produce a necrosis reaching any distance, while, as soon as the necrosis has spread out a certain distance, the bacillus loses the power of growth and the further production of the necrosis-producing substance. In this way occurs a sort of compensation which circumscribes the growth of isolated bacilli, as for example in lupus, in scrofulous glands, etc. In such a case the necrosis affects only a part of a cell, the further growth of which produces the peculiar giant cell. I follow here also the explanation of the production of the giant cells first given by Weigert.

If now the necrotic tissue in the neighborhood of the bacillus is artificially increased, the condition of nourishment for the bacillus is made thereby very much more unfavorable



than it ordinarily is. In part now the necrotic tissue breaks down, and, where possible, the inclosed bacilli are cast off; in part the growth of the bacilli is in so far impaired that they die from themselves much more readily than under ordinary circumstances.

It is in the production of such changes that the working of this medium seems to me to consist. It contains a certain amount of a necrosis-producing substance, which in sufficiently large doses does injury to certain tissue elements, perhaps the white blood corpuscles or the nearly kindred cells, and therewith fever and the whole complexity of peculiar symptoms. In the tuberculous a very small dose suffices to produce in certain places, namely, where the bacilli vegetate and have already impregnated the surrounding tissue with the necrosis-producing substance, a more or less diffuse necrosis of the cells, together with the attendant general symptoms. In such a way, at least provisionally, is easily to be declared the specific influence of the substance in very small doses on tuberculous tissues; further, so is to be explained the possibility to increase the dose so strikingly rapidly, and the unmi-stakable power of the substance to work a cure under only moderately favorable circumstances.

Translated by JAMES B. BULLITT.

BONN, GERMANY, JAN. 17, 1891.

### Translations.

UNDER THE CHARGE OF L. N. BLOOM, A. B. M. D.,  
Dermatologist, Louisville City Hospital, etc.

THE ANTI-BACTERIAL EFFECT OF PYOCTANIN.—(Dr. O. Petersen, *St. Petersburg Medical. Woch.*, No. 27, 1890.) (1) In septic as well as in aseptic wounds and ulcers both the yellow and violet pyoctanin act anti-bacterially, whether used in crayon, powder, or solution (1 to 100—1,000). Its effects are as good as those of iodoform, and it is odorless. (2) Its favorable effects are not confined to diseases of the eye; chancroids and gummous ulcers are benefited by it. (3) No toxic effects have as yet been noticed from its use.

Later Petersen adds: "Since writing the above I can confirm my observations on several hundred cases of chancroid. I need only

say that during the past six weeks no iodoform has been used in my department of the hospital (at present eighty-five beds), or in the outpatient department (about forty patients daily), but only pyoctanin (principally one per cent); the results have been as good as when iodoform was used.

During the last month eight circumcisions have healed by first intention under pyoctanin. One case of inguinal bubo as large as a goose egg was treated as follows: After the incision, instead of enucleating, violet pyoctanin (one per cent) was painted in the cavity and the usual bandage was put on. The bandage was changed once daily for three days, then two changes after four days each were made. Then after six days the bandage was taken off and wound was found to be healed (seventeen days). In urethritis good results were obtained with a solution of from 1 to 100 to 1 to 1,000. Care must be taken not to stain the linen. No material difference could be observed between the yellow and violet pyoctanin.

TUBERCULOSIS OF THE TESTES IN CHILDREN. (Dr. Jullien, *Archives Générales de Médecine*.) According to the writer, tuberculous disease of the genitals of children is not rare. In less than three years he met with seventeen cases in the Hôpital Trousseau—one case in every one hundred and fifty children treated in the polyclinic. These, with three cases described by Lannelongue in his work, "Congenital and Precocious External Tuberculosis," form the clinical material upon which the writer bases his article. Six of the affected children were between the ages of one and ten months, six between one and two years, and eight between two and thirteen years. As the patients were treated in the polyclinic, the question of heredity was unfortunately not examined into closely. All the children belonged to the poorer classes, and were born and lived in the most unfavorable hygienic surroundings. Many were also affected with tuberculosis of the bones and joints. In one case the cause of the disease was referred to trauma (fall against a table). The left testicle was more often affected than the right.

Without going into particulars of the symp-

toms and progress of the disease with the writer, we find that his prognosis is by no means bad. None of the children died, and those whom, after several years, he was able to find were enjoying perfect health. Often only a cicatricial depression, found with difficulty, was all that remained of the tuberculosis. The treatment was for the most part expectant. The wounds were treated locally antiseptically. Cod-liver oil and iodoform were given internally, the latter on an average of about 0.05 (one grain) daily. Children bore this without difficulty for months. The author reminds us that the treatment of adults is very different as regards expectant and operative treatment.

In conclusion, a short *resumé* of the twenty cases is given, from which the following are taken on account of the early appearance of the disease :

One child, at the age of two months, had a hard tumor of the testicle and epididymis. The diagnosis was ratified after puncture.

A child four months old suffered almost immediately after birth. The sac was as large as an orange, the skin red and inflamed, with considerable hydrocele on the right side.

A child three months old was affected soon after birth ; an abscess formed and opened, and in the third month cicatrization had begun.

One of Lannelongue's cases showed tuberculous disease of the prostate and seminal vesicles several days after birth. Later a fistulous tract was formed in the testicle. The same observer noted a case immediately after birth, which he regarded as being of intra-uterine origin. A tuberculous tumor formed which developed into an abscess, opened spontaneously, and evacuated cheesy masses. The author thinks from some of these cases it can be clearly demonstrated that the infecting bacillus need not necessarily be taken *post-partum*.

**BEGINNING, DURATION, AND TREATMENT OF SYPHILIS.**—(Prof. Leloir, Lille : International Medical Congress at Berlin ; *Internat. Klin. Rundschau*.) I only begin active treatment of syphilis with the occurrence of secondary symptoms. Up to that time I use mercurial preparations on the primary lesion in local applications.

According to the severity of the secondary symptoms I prescribe daily inunctions of from two to four grams (thirty to sixty grains) for two or three weeks, and continue this for ten months. During this period and in the times between I treat the symptoms locally with mercurial preparations. Mercurial plasters for the skin syphilides, and mercurial salves and solutions to the mucous syphilides. In certain cases of rebellious skin syphilis I prescribe baths containing about seven grams (one hundred and six grains) of bichloride of mercury. It is superfluous to add that I take special care to keep the mouth in the best hygienic condition and seek to strengthen my patient as much as possible. In many cases I advise a sojourn to the country or seashore. After the lapse of six to ten months I keep up the inunctions for ten days only, and allow the patient to rest from three to six weeks, and in some cases two months. In this manner the treatment is continued for one or two years from the beginning of the disease.

I also prescribe laxatives and diaphoretics, in order, if I may be allowed to use the expression, to allow the mercury to circulate in the system and to prevent its heaping up in one place. In exceptional cases, where the patients are troubled with headaches and deep-seated pains which do not yield to mercury, I prescribe two or three grams (thirty to forty-five grains) of iodide of potash, to which I usually add one half to one gram of bromide of potash.

After the second year my treatment varies greatly, according to the severity of the case. If the patient has been for some time free from syphilitic symptoms, I advise him to use inunctions of from two to three grams of mercurial ointment for ten days every three months, and two to three grams of iodide of potash for several weeks after the inunction. The latter should be taken after meals or in the evening, generally in milk. It is unnecessary for me to say that, should syphilitic symptoms occur at this time, I return to more energetic measures and regulate them as regards duration and strength by the severity of the symptoms.

If at the end of the third or fourth year my patient has been free from syphilitic signs for more than one year, I advise him for caution's

sake to use the inunction cure twice a year (spring and fall) for ten days each, and to follow each, one month later, by iodide of potash for three weeks.

If the patient comes to me after four years have passed by, although he has been free from all signs for a long time, I nevertheless advise him to keep up this occasional treatment, and, in case the least suspicious symptom shows itself, to consult a specialist at once.

I avoid the general way of using mercury and iodide of potash, because I fear the effect. I have often seen an alteration of the whole system of the patient from which severe neurasthenic symptoms developed as a result of the therapeutic abuse of these drugs. I have several times seen cases where these neurasthenic symptoms, with dilatation of the stomach as a sequence, were diagnosed as cerebral or cerebro-spinal symptoms, and increased doses of mercury and iodides only increased the symptoms.

I can at this moment recall several cases, of which the following would be a *resumé*:

The patient has acquired syphilis. He consults a specialist, who treats him and treats him properly. Worry and anxiety about his condition, excess of mercury and iodides, bad hygienic surroundings bring about a series of neurasthenic symptoms, such as headache, vertigo, change of disposition, disturbance of memory, which deceive the physician into making a diagnosis of cerebral syphilis. When once this diagnosis has been made the rest follows as a matter of course; the former treatment was not sufficient and must therefore be repeated. In spite of the now most energetic specific treatment the cerebral symptoms do not disappear; on the contrary they grow more severe. The patient again consults the physician, who doubles the dose, and the neurasthenic symptoms, because of an unnecessary and exaggerated specific treatment, grow more aggravated.

A nervous disease is thus brought about directly by the abuse of mercury based on an error of diagnosis, caused by improper observation of general hygienic rules. I beg pardon of the gentlemen if I have dwelt too long upon the dangers which follow the abuse of specific medication and the differential diagnosis between

brain syphilis and neurasthenia. I had the more right to do so, because I have more than once fallen into the same error; but I have repaired my errors in that I have caused neurasthenic symptoms to disappear in many cases, which had been treated for cerebral syphilis, by causing a cessation of specific treatment, often against the will of the patients.

These, gentlemen, are the principles that guide me in the treatment of syphilis.

In conclusion, I would add that I only prescribe mercurial preparations for internal administration when I can not help myself. As Jullien has shown, internal mercurial medication, because of the digestive disturbances which it causes, is much more often the cause of neurasthenia than inunction. I use the former when there is an intense dislike to inunction, or where it is necessary to conceal the treatment (married women), or where the skin is too irritable and inunction can not be borne. As a rule, even irritable skins will stand inunction if the ointment is freshly prepared from fresh benzoated lard, and if twelve hours after the rubbing the skin is washed and powdered. I also use internal treatment in those cases where it is absolutely necessary to conceal the fact of treatment, and in cases of commercial travelers who can not or will not submit to an inunction cure.

As for the hypodermic injection of soluble and insoluble salts of mercury, my custom is to use them only in hospital practice and on prostitutes, who have a tendency to avoid taking the medicines prescribed for them.

A CASE OF ABSCESS OF THE LIVER: LAPAROTOMY; RECOVERY. — (Dr. L. Defontaine, *Revue de Chirurgie*, July, 1890; *Deutsch. Med. Zeit.*) A woman, thirty-two years old, who had felt weak and miserable for a long time, noticed a decided increase in the size of her belly shortly before entering the hospital. Examination disclosed the fact that this was due to a tumor of the liver. As there was high fever, an abscess was suspected, and the evacuation of the same appeared a necessity, considering the wretched condition of the patient. Laparotomy was done without previous tentative puncture. The pus was evacuated with a trocar. After



thoroughly washing out the abscess cavity the liver was sutured to the abdominal wall. Care was taken to include as little as possible of the liver tissue in the suture, and, where possible, to include only Glisson's capsule. Pressure on the liver tissue in closing the sutures was also avoided. Convalescence was uniformly rapid and recovery complete.

**TREATMENT OF ABSCESS OF THE LIVER BY PUNCTURE AND DRAINAGE.** — (Dr. Renvers, *Berlin Klin. Wochen.*, August, 1890.) The author has previously successfully operated by puncture and drainage upon several cases of empyema where it was desirable to save the strength of the patient. This determined him to operate in a similar manner upon a patient thirty-three years old, upon whom an exploratory puncture had been made and the diagnosis, abscess of the liver, established. The operation was performed as follows:

The site of the puncture was anesthetized by cocaine. Without changing the position of the patient, and almost painlessly, a trocar and canula, fourteen centimeters long and six millimeters in diameter, was inserted into the liver. Of course antiseptic precautions were observed. The entrance of the trocar into the abscess could be plainly felt. The trocar was withdrawn and about two tablespoonfuls of thick pus slowly exuded. As large a Nélaton catheter as possible was pushed through the canula into the abscess cavity and the canula withdrawn. The skin wound grasped the catheter closely. An antiseptic bandage was placed over and around the catheter and the pus allowed to escape. The temperature fell from the time of puncture, and with care and good diet she made a good convalescence and left in four weeks cured. The author thinks this operation peculiarly suitable for those cases where the pus cavity is deep seated and where the weak condition of the patient renders other surgical interference ill advised.

A prime condition of this operation is that the site of the pus cavity can be accurately determined. In many cases the subjective symptom of pain referred to a certain part of the liver is a correct guide, especially in abscesses on the surface of the liver. Exploratory

puncture is a most important diagnostic aid. After the author had convinced himself of the harmlessness with which exploratory puncture of the liver could be made upon animals, he practiced it upon his patients in suitable cases and never saw any ill effects follow. Another condition for the success of the puncture-drainage operation is that the abscess should be single and not multiple, as so often happens in Berlin latitudes. The sphere for this operation is the deep-lying, solitary liver abscess, the diagnosis of which is often as difficult as its symptomatology and etiology are obscure.

**SULFONAL FOR NIGHT-SWEATS.** — (*Therap. Monatschaft, Maerz*, 1890; *Memorabilien*.) Boettrich gave a woman, eighty years of age, 0.25 (four grains) of sulfonal as an hypnotic. After using one powder she asked him if its virtue consisted in the abatement of night-sweats. She suffered so profusely from this trouble that she had been compelled to change her linen twice every night. After the fourth dose of sulfonal great improvement was noticed. Further observation proves to the writer that 0.50 (seven and one half grains) was generally successful in the prevention of night-sweats. Boettrich thinks its effects equal to those of atropine, and it possesses the advantage of freedom from disagreeable after-effects. It retains its power, as he finds that the night after taking a dose the sweating is decidedly less.

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## Abstracts and Selections.

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**TWO CASES OF TUBAL PREGNANCY, WITH REMARKS ON ECTOPIC GESTATION.**—On June 23, 1890, a lady called at my office complaining of bloatedness, backache, and constipation. She gave her age as twenty-seven; was of American birth; had enjoyed perfect health up to her marriage four years ago; pregnant once, three years ago, labor at full term, normal. After confinement she had "ulceration of the womb," for which she was treated over a year in Milwaukee. It is an exacerbation of this womb trouble (she thinks) that now compels her to consult a physician. Upon examination I found the cervix neither lacerated nor ulcerated. In the region of the right ovary there was a painful swelling; a thorough examination, however, was impossible, on account

of the tenseness of the abdominal walls. I told the patient that part of her complaint was no doubt due to constipation, and that I would first try to relieve this and pay more attention to the womb later; I prescribed accordingly. About a week later, on the 30th of June, she again called at the office on account of constipation and intense bearing-down pains. I again examined and found the uterus decidedly larger than normal, the cervix peculiarly soft and doughy; the swelling on the right side of the womb seemed also somewhat easier to be felt. I told the patient I thought she was pregnant, and the bearing-down pains might indicate a miscarriage. She repudiated the idea, as she noticed no subjective symptoms of pregnancy, and as she had always been regular with her periods. She had menstruated last on the 7th of June, and expected surely to menstruate again on the 7th of July.

On July 3d I was called to the patient's house. She suffered excruciating pains, beginning in the lower part of the abdomen and radiating down the thighs; the pains were steady and not like the contractions of labor. Enemata opened the bowels, but did not remove the pains, which were only controlled by morphia. There was no nausea, no fever; appetite wonderfully good. In this way she passed a miserable time up to the 7th of July, the date of the next expected menstrual period. For the first time in three years the menstrual flow failed to appear. On the 12th, however, there was a show, and on the 13th she flowed quite freely. Meanwhile I had made up my mind that she was undoubtedly pregnant; and in order to satisfy myself as to what had become of the swelling on the right side I examined on the 14th. There was no doubt that it had decidedly increased and had pushed the uterus over to the left and somewhat forward. It was exceedingly painful. To all appearances I had to deal with a case of extra-uterine pregnancy. I thus informed the husband, and we decided to call Dr. Jaggard in consultation.

On the 18th we examined the patient under chloroform, and found the uterus enlarged, especially so in its antero-posterior diameter, pushed forward and somewhat to the left. The cervix had the soft, doughy touch characteristic of pregnancy. To the right of the uterus, and in a somewhat downward and backward direction, an elastic tumor of the size of a child's fist was felt. Between the uterus and tumor there was room enough to put in a finger. Dr. Jaggard confirmed my diagnosis and also concurred with me in recommending immediate operation. This I did at the Michael Reese Hospital, Dr. Jaggard being present, on the 25th of July.

After opening the abdomen the bowels appeared slightly stained with bloody serum. Pushing these back, the whole situation could be taken in at a glance. Having introduced a colpeurynter into the rectum (as I am in the habit of doing, in order to lift up smaller tumors situated deep down in the pelvis) I at once reached the tumor. There was, to the left, the uterus, twice its normal size and very turgescent. The left tube, very much hypertrophied, as thick as the index finger, exhibited large veins. The right tube was still larger; its middle part especially showed an immense hypertrophy of its muscular elements, which spread like a fan over a tumor. The latter was of the size of a child's fist; it was glued by soft attachments to the uterus, the rectum, small intestines, cecum, and right side of pelvis. These adhesions were so loose that they easily broke down under the finger. Very little hemorrhage followed. After freeing the bulk of the tumor a pedicle was easily formed. I first ligated the uterine end of the tube, then I secured, by three linked ligatures, the fimbriated end and part of the broad ligament, including also the ovary. After removing the tumor there was an annoying oozing from a separated adhesion to the rectum, so much so that I decided to use a tobacco-bag tampon with iodoform gauze, after Mikulicz. The patient rallied very readily from the operation. There was also considerable bloody discharge through the tampon during the first two days. The tampon was removed on the sixth day. For a number of days the temperature rose to 101° in the evening, which elevation was due to the iodoform, as was clearly demonstrated by the prompt return of normal temperature as soon as we began using oxide of zinc and later on balsam of Peru. There is still (on October 26th) a small fistula left, at the bottom of which I think a ligature keeps up a little discharge; \* otherwise the patient is well. She began menstruating, the first time after the operation, on September 18th.

Examination of the specimen showed that it was a case of tubal pregnancy. The ovisac proper was situated in the middle of the tube, while the upper wall of the tube, that is, the part next to the antero-lateral abdominal wall, showed immense hypertrophy of its muscular fibers (they were as large as bundles of a strong biceps). The opposite side of the tube was thinned out so much that it seemed as though the ovum was ready to break through, out of the tube, into the *caldezas* of Douglas. The amnion was intact; it contained about an ounce of fluid, and the fetus was well differentiated, and apparently about five weeks old. The

\* November 11th, ligature extracted from the fistula.



ovary, which was removed together with the tubes, contained a cyst of the size of a small apple, being filled with a thin, chocolate colored fluid.

Shortly after the preceding case had left the hospital another one was brought in, of which the house physician, Dr. M. Goodkind, has furnished me with the following history:

Patient aged forty, menstruated at fourteen; menstruation every four weeks up to five years ago, when the flow became irregular, sometimes occurring twice a month; generally lasts seven days, without pain and of fair quantity. Patient menstruated last three months ago (May 20th). Married seventeen years; three confinements, all full term, normal labors; eldest child thirteen years old, youngest five. Six weeks ago (July 16th), while washing, she experienced sudden and excruciating pains in neighborhood of genitals, causing unconsciousness which persisted for an hour. When she emerged from this condition she described sensations of vertigo, tinnitus aurium, pain, dyspnea, and utter prostration, causing such intense distress that she became quite incapable of any exertion, and took to bed. Accompanying these symptoms she had alternating chills and fever, anorexia, nausea, and vomiting. A week after she began to menstruate slightly, and has done so to date. These various symptoms caused a rapid deterioration in health, and on August 27th she entered M. R. Hospital.

*Status presens:* Patient of strong build, but extremely anemic; has a haggard and careworn expression. She suffers with intense bearing-down pains. Abdomen presents a symmetrical enlargement extending from the symphysis to one inch below the umbilicus, of fairly hard, elastic consistence. No fetal sounds.

By bimanual exploration we found the cervix pushed up behind the symphysis by a tumor, resembling a small head, descending down upon the floor of the pelvis. It was impossible to properly locate the fundus uteri, its outlines being lost in the tumor, which extended from the posterior *cul-de-sac* along the region of the left broad ligament to within an inch below the umbilicus. It seemed to fluctuate, and, in fact, to present all the symptoms of a hematocele. I inserted an aspirator needle, but did not get any fluid. The following days the patient had a little fever, the temperature ranging in the evening between  $100^{\circ}$  and  $102^{\circ}$ ; the pains were controlled by morphia, but the tumor seemed to rather increase, causing retention of the urine, necessitating frequent use of the catheter. I deemed it necessary to do something radical to relieve the patient, and decided upon laparotomy. Our junior gynecologist, Dr. Frankenthal, agreed with me in

the diagnosis—hematocele, probably caused by the bursting of an ectopic ovisac. September 4th was set for the operation.

After opening the abdomen the omentum and bowels appeared tinged with a peculiar yellowish-brown color, which revealed at once the bloody nature of the tumor. The tumor lay hidden under the small intestines, which were easily loosened with the finger and pushed back with a sponge, so that the apex of the mass was brought to view. After sponge-packing all around it, in order to protect the abdominal cavity against an overflow of possibly poisonous liquid, I first tried to aspirate; but, failing to get any fluid, I cut into it with a knife, making an incision wide enough to admit a half-hand. It contained black, semi-coagulated blood, which I scooped out with the hand. Thus far I thought I had to deal with a simple hematocele, and that the uterus lay pushed over to the left side. While manipulating to get the last coagula out I loosened what I considered to be the womb; it proved to be a hard, solid coagulum which was hanging attached to a few loose shreds from the left horn of the uterus. The uterus proper I found in the median line and of normal size. After thoroughly cleansing the abdomen and the sac, I stitched the latter to the peritoneum and packed it with iodoform gauze. The patient rallied nicely from the operation. On the second day, however, the temperature went up to  $103^{\circ}$ , the abdomen became tympanitic, pulse weak, 130. Gases had failed to pass so far, in spite of laxatives, rectal tube, and turpentine enemata. We really thought the patient in great danger of beginning peritonitis, and in order to give her a chance we took her at 9 o'clock in the evening to the operating room, in order to relieve a possible retention of the wound secretions. While she was on the table, and before I had done any mischief to the wound, the first flatus passed *coram publico*. From that time on she began to feel better. She is still in our ward and has no fever; the wound discharges very little, and is becoming smaller from day to day.

In this case tubal pregnancy had occurred; the ovisac burst, first causing hemato-salpinx, then hematoma of the broad ligament, finally tearing and disintegrating the whole tube, the remnants of which were hanging down in shreds from the left cornu uteri. Later on there was renewed hemorrhage into the pouch of Douglas, causing hematocele. The sac, which I stitched to the abdominal incision, was organized blood, not peritoneum. The original ovisac, represented by the hard coagulum covered with villi, lay inside of the hematocele.

*Remarks:* 1. *Diagnosis of Ectopic Pregnancy.* It must be easy to make a correct diagnosis after



the fourth month and before rupture of the sac, because we feel the living fetus or hear the heart sounds. Before the fourth month there might sometimes be a doubt, especially if the physician see the patient only once, or if he be unable to get an intelligent history. Besides the well-known and generally accepted signs of pregnancy (subjective and objective ones), I would derive the most valuable help, in making a diagnosis, from a close history. There will always be some irregularity in the menstrual flow—either cessation or too early recurrence of the periods—while formerly the menstruation has been regular. This irregularity resembles very closely the flow in a case of abortion. Another valuable symptom will be intense, excruciating bearing-down pains, mostly one sided. These are not labor-like pains, but are more steady. They are no doubt caused by the distension of the tube due to the rapid growth of the tumor. If we add to this the objective symptoms—the enlargement of the uterus, that characteristic doughy touch of the cervix, the presence of a gradually increasing tumor somewhere in the region of the broad ligament—then I think there should be sufficient reason to warrant the diagnosis of ectopic pregnancy. My first patient illustrates this symptomatology most conclusively. She is a woman who has always menstruated regularly to the day. Fourteen days after her last menstruation she begins to experience intense bearing-down pains, starting in the right hypogastric region; then, for the first time in three years, goes over her time six days; then a free flow sets in for ten days; shreds of decidua pass. With all that there is no fever and no other cause to explain the pain. By digital exploration we find an enlarged uterus, giving that characteristic doughy feel of pregnancy, together with a steadily increasing tumor situated near the womb in the region of the broad ligament. There was, however, one classical symptom of pregnancy wanting, namely, the patient herself had not the slightest idea of being a gravida.

Now, how about the diagnosis of rupture of the ovisac? Those cases constitute two different classes, namely: (a) Rupture causes acute internal hemorrhage. Now, since there is hardly any other trouble but ectopic pregnancy causing internal hemorrhage, we may diagnose it once if a patient shows the well-known symptoms of acute internal hemorrhage. (b) Rupture causes peritonitis, sepsis. If a patient had not been under observation before the accident, it might often be impossible to differentiate a ruptured ovisac from a ruptured pyo-salpinx, ovarian cyst, or the like.

2. *Anatomy.* You know that Lawson Tait

claims that the different varieties of ectopic pregnancy described in the text books are mere theoretical classifications, and that all cases are originally tubal, becoming ovarian, interstitial, or abdominal only after rupture of the tube and migration of the ovum to a new resting place. The simplicity of this theory recommends it. All recently published cases have been tubal pregnancies, as were the two cases related this evening. The first case also clearly demonstrates by the thinning out of the tube the possibility of an ovum slipping out of such an opening.

3. *Frequency.* Late publications go to show that ectopic pregnancy occurs much more frequently than we have generally thought, a great number of cases of so-called *hematocele retro-uterina* and hematoma of the broad ligament being nothing but cases of ruptured ectopic pregnancy. Martin, Olshausen (of Berlin) have described many such cases. True, they never found the fetus, but were able in every instance to demonstrate the true nature of the disorder by the presence of decidua cells. Orthmann (who published Martin's cases) says that if in a hematocele we find an organized, well-defined coagulum we may feel sure that this coagulum was originally an ovisac. Upon its microscopical examination we will find villi or decidua cells. Our second case wonderfully corroborates this statement. *In situ* yet of the torn and bursted left tube, and surrounded by the semi-coagulated blood accumulated in the hematocele sac, we found a coagulum of the size of an apple, covered with villi and inclosing the shrunken remnants of an otherwise well-differentiated fetus.

4. *Predisposition to Ectopic Pregnancy.* It is worth while to repeat here that the first patient had been ailing for years (after her first confinement) with pains in the right ovarian region, and that an ovarian cyst of the size of a small apple, containing thin, chocolate-colored fluid, was removed together with the ovisac, right ovary and tube.

5. *Treatment.* There is hardly any possible difference of opinion about what to do if a physician is called to treat a patient showing the symptoms of a bursted ectopic ovisac. We have of course to perform laparotomy at once—in the one case to stop an otherwise fatal hemorrhage; in the other case to remove decomposed matter which, if left in the abdominal cavity, will undoubtedly set up a fatal peritonitis. What shall we do with a case where the sac is still intact? Let us first ask what will become of the patient if left to her fate? The sac might burst at any time, thus giving the patient a chance to die either from hemorrhage or from sepsis; or if she should

escape both, and the fetus undergo mummification (lithopedion), she might, after years of suffering, see the fetus make its way out of the abdomen by perforating bladder, vagina, or rectum. Such being the case, I think the best way to deal with any case of extra-uterine pregnancy is to extirpate the ovisac as soon as the diagnosis is made. For, even if we succeed in killing the fetus by electricity, aspiration, or injection of morphine, we are by no means sure that no sepsis or hemorrhage will follow, or that, years after, a lithopedion will not cause trouble necessitating an operation.

In an early month the operation will amount to nothing more than a laparotomy for a small ovarian tumor or salpingitis.

Thomas has warmly advocated the use of electricity, not only with a view to killing the fetus and waiting for its resorption, but also with a view to arresting placental circulation, thereby minimizing the danger from hemorrhage in a subsequent laparotomy. This would seem a very good plan if the action of electricity were sure; but since it is not, it seems more rational to operate at once, and not allow the placental circulation to increase by a delay due to futile efforts to arrest it. In my first case Dr. Jaggard and I discussed the propriety of a trial with electricity, but we decided to gain time over an increase of the placental circulation by immediate operation, and we really had no difficulty in controlling hemorrhage.

However, as gestation progresses the danger from hemorrhage increases. There being no contractile tissue to stop the gush of blood issuing from the placental insertion, it is of the greatest importance not to disturb the placenta. In such an advanced stage of ectopic gestation where rupture occurs less frequently I would try electricity as the first preparatory step to a later laparotomy. In case pregnancy, for some reason or other, has been allowed to go on to near full term, the child has also some claim for consideration. Here, in order to save a viable child, we might put off laparotomy until labor begins, being ready, however, to operate at any time if symptoms of rupture of the sac should demand it. The safest way to treat the placenta in such a case seems to be not to attempt to detach it, but to stitch the sac to the abdominal wound, pack with iodoform gauze, and wait for spontaneous loosening of the after-birth.

In case of hematocele the proper treatment would be to first wait for natural resorption of the bloody effusion; second, to aspirate; third, to open through the pouch of Douglas, if the tumor does not reach high enough to allow it to be sewed to the abdominal walls; fourth, laparotomy, if the tumor touches the anterior wall

of the abdomen. Laparotomy seems the most rational procedure, because it allows us to properly locate the extent and surrounding parts of the hematocele. Whenever incision is resorted to, the opening should be made wide enough to easily remove all coagula.—*Dr. Henry M. Banga, American Journal of Obstetrics.*

THE DIARRHEA OF CONSTIPATION.—In the course of his remarks on a case that was presented for treatment at the Medical Department of the Polyclinic, Prof. Solomon Solis-Cohen alluded to the frequency of the condition which has been called "the diarrhea of constipation." The patients, as in the case before the class, frequently state that they have had chronic looseness of the bowels for many years. The immediate cause of seeking advice is usually paroxysmal pain, which may stimulate hepatic colic, or, as in a case recently seen in private practice, may simulate renal colic. The so-called diarrhetic stools should be carefully examined, and the history carefully inquired into, with the minuteness of a legal cross-examination. The true facts will then be found at variance with the patient's statements. There will be much desire to go to stool rather than frequent passages, and the amount of fecal matter passed will be found to be very small. The passages are small, thin, serous, foul smelling, sometimes bloody, usually containing much mucus. Scybala will occasionally be passed, usually with much pain and difficulty. They are commonly glazed with a glairy mucus, and often faintly blood stained. In other words, there is a condition of irritation of the bowel, with insufficient evacuation of the contents. Frequent attempts at defecation, but little result. The paroxysmal pains are due to distension, traction, and pressure. When the patient has been in the habit of taking opium mixtures to relieve the supposed diarrhea, the abdomen may be found greatly distended from paralysis of the intestinal muscular layer. The percussion phenomena will be mingled tympany and dullness, the distribution of the sounds depending on the location of masses of feces in the bowel. Usually the ascending and transverse colon will be found filled, and the transverse colon may seem to be much dragged down. Pains in the chest may be caused by traction upon the diaphragm. Enlargement of the liver, or ascites, may be mistakenly diagnosed, unless care is taken to map out the dullness accurately, and not to be misled by the apparent fluctuation of the relaxed intestines. Headache, vertigo, languor, anorexia (sometimes boulimia), nausea, vomiting, are among the chronic or recurring symptoms other than those already mentioned. The first thing in treatment is to thoroughly wash



out the bowel. This may require several irrigations, supplemented by massage of the abdomen. When there is no absolute impaction calomel may be given in single daily doses of five grains, with soda or aromatic powder, continued for two, three, or four days. Olive oil in large doses and castor oil may also be given by the mouth, or warmed and thrown as high as possible into the bowel an hour or two before the irrigation. After the bowel has been emptied a tonic laxative pill should be prescribed for continuous use for long periods, with occasional resort to calomel, oil, and salines.

A good formula is as follows:

Euonymin .....gr. ij;  
Ext. ignatia.....gr. ss;  
Ext. belladonna.....gr. ij;  
Piperini .....gr. j.

M. S: One pill three times a day, after meals.

The number of pills daily or the sizes of the doses may gradually be reduced as improvement is manifested. Resin of podophyllum, leptandrin, iridin, and the like may be used with or instead of the euonymin. Extract of cascara sagrada is very often useful. The dose is from two to five grains. The ignatia may be replaced by strychnine or nux vomica, the belladonna by hyoseyamus. The commonly used pill containing aloin or aloes is not often useful, and the hemorrhoidal condition present often counter-indicates it. Ipecacuanha is often usefully combined with the other agents.

The diet should be carefully regulated. At first it should be restricted to milk (peptonized or with digestive agents added), beef tea as a stimulant, thin soups, coffee, and the like. After a little while, when the intestinal irritation and catarrh have subsided, meats and vegetables may be added. Bran bread and other substances intended to assist peristalsis by irritation should not be given. Laxative fruits may be eaten in moderation. Pastry, sweets, and other indigestibles are to be avoided. Plenty of water, preferably hot water, should be drunk. Enemata may be required from time to time to wash out accumulations, and at first should be given daily, then on alternate days, then weekly, as a routine practice. Abdominal massage and faradization of the intestines are of great service.

It is quite evident that treatment of the apparent diarrhea by astringents and opiates is a mistake, and yet this practice is so common as to render it worth while to caution against the error and to insist on careful examination of the patients. There are other cases of apparent diarrhea and colic which may turn out to be something quite different on examination. "Walking typhoid fever" is familiar to all but it is not as generally known as it ought to be that serious and even fatal results have occurred

in cases of perforating appendicitis and other inflammations in the neighborhood of the cecum, as a consequence of neglect due to insufficient inquiry into the case. We should never accept a patient's diagnosis until our own investigations have proved it to be correct. — *Times and Register.*

**PERFECTED OBSTETRICS**—Dr Alfred L. Carroll, discussing "the influence of a more perfected obstetric science on the biological and social conditions of the race," has some very pertinent observations on the number of cases of "still births" and the effect of the present condition of obstetrical science. For instance, he says:

It is to be regretted that the registration of vital statistics is so imperfect in this country as to preclude any attempt to classify by months the mortality under one year; but the data, such as they are, indicate that in the United States generally about twenty-five per cent of live born children die during the first twelve-month.

It would not be unreasonable, perhaps, to assume that at least half of the deaths under one month are attributable to accidents in parturition, and that a large residuum of those occurring in the first year has a similar origin; but the admirable reports of Farr may enable us to go a step farther in the field of inference. The death-rate under one year per 10,000 births in England, for the three years ending with 1875, was 1,527. Of these, 95 were ascribed to the acute zymoses, 29 to teething, 171 to diarrhea, 263 to lung diseases, 98 to tuberculosis, 128 to prematurity, 267 to atrophy, 14 to suffocation, and 251 to convulsions, leaving 211 not stated. The deaths from prematurity, atrophy, and convulsions constitute nearly half of the mortality, all of the former and a considerable proportion of the latter two being referable to the time or act of parturition, and some of the pulmonary disorders having their predisposition, if not their origin, in atelectasis at birth. In Farr's *March of an English Generation*, based on the labor of over thirty years, he computes that the average deaths per million under one year will be 149,493, of which 39,637 will be from diseases of the nervous system, and 21,995 from respiratory maladies. West, taking a wider view of nervous disorders, ascribes to these 39.5 per cent of all the deaths under one year, and to convulsions alone 73.3 per cent of the nervous system mortality—equivalent to 33,421 to the million births. Nor is he any less cogent in his reasoning than in his statistics. The conclusions which he draws respecting the social conditions have the sound of true earnestness which is refresh-



ing. Under this head he says: As regards social conditions, I have little to say beyond expressing the belief that misery rather than midwifery is responsible for most of the degradation which blots our vaunted civilization. It may be that in some cases such misery is the outcome of physical disability dating from birth or parturition, but in more instances it is the result of acquired vicious habits. Social statistics show that the numbers of murders, suicides, and other kinds of crime bear about the same proportion to population every year; but of the etiology of criminality nothing can be positively affirmed. Even those who dogmatically ascribe all the ill doings of the world to alcohol have still to find some antecedent factor, and explain why the vast majority of consumers of alcoholic beverages refrain from crime. Inebriety is often the excitant, but the predisposition must be sought behind it. *In vino veritas* has a wider philosophical meaning than they who quote it ordinarily wot of.

The vexed question of heredity (not so much of disease as of proclivity to disease) has little relation to obstetrics, save as it has led some enthusiasts to imagine an impossible prophylaxis by forbidding the marriage of physically, mentally, or morally unhealthy persons, and in this way diminishing obstetric practice, except in illegitimate births; and it is doubtful if any thing but a destructively retrogressive midwifery or an increasing prevalence of oöphorectomy can materially reduce hereditary morbidity, since delicate and especially consumptive women seem to be more apt to conceive and less likely to miscarry than their more robust sisters. As a glittering generality it may be asserted that every obstetric advance which saves mothers from invalidism and children from incapacity for future effort must promote the social condition of the race, but politico-economic rules and the inexorable operation of natural laws will probably always overshadow in this respect the influence of medical science or even of congressional legislation.—*Ibid.*

**ELECTROLYSIS OF ANIMAL TISSUES.**—A paper on this subject is being published in a volume of *Memoirs from the Physiological Laboratory of the Owens College, Manchester*. I wish to give here a brief summary of the work and of the chief results. This paper was restricted to the chemico-physical changes, the physiological effects being left for a future communication. There were two preliminary questions to settle: (1) How much of the conduction in animal tissues is electrolytic? (2) What are the electrolytes? I have found that practically the whole of the conduction is electro-

lytic, and that the electrolytes are chiefly the inorganic constituents. When a tissue is electrolyzed, almost the whole of the current passes by the salts. The changes produced in the proteids must therefore be brought about by secondary electrolytic actions. These changes were investigated (1) in simple proteid solutions, (2) in animal liquids, (3) in isolated tissues, and (4) in living animals.

1. In simple proteid solutions the effects vary to some extent with the current density (this was calculated from the intensity measured in milliampères). But in the solutions used alkali-albumen is always formed at the cathode, and acid-albumen at the anode, while in solutions of coagulable proteids there is also coagulation at the latter. With a strong current the proportion of coagulated proteid to acid-albumen formed at the anode is greater than with a weak current.

2. Blood, bile, and urine were the chief animal liquids investigated—blood for its own sake; bile and urine merely to illustrate the action of the current on complex solutions. Blood serum, entire defibrinated blood, and pure hemoglobin solutions were used. There was no indication whatever that hemoglobin or any derivative of it acts the part of an ion. At the anode in a pure hemoglobin solution the reaction becomes acid, and acid-hematin is formed, which remains partly in solution and is partly thrown down, the liquid becoming less deeply colored. When the current is strong or long-continued the hematin suffers further change, and is decolorized apparently by the nascent oxygen or chlorine set free. If a reducing agent is present at the anode, the hemoglobin is not affected there by electrolysis. With proper adjustment of the strength of the current methemoglobin may be seen to appear at the anode before acid hematin, and they may be found together there. At the cathode alkali-hematin is formed; but its spectrum does not appear so soon as that of acid hematin at the anode. In entire blood the changes in the hemoglobin were similar to those described. The proteids of the serum and the corpuscles were partly coagulated at the positive pole. At the cathode they were more or less completely changed into alkali-albumen, according to the strength and time of flow of the current.

3. Striped muscle was the chief solid tissue observed. Microscopically, great changes were found in the fibers, the nuclei becoming very prominent in the parts near the anode, and the sarcous substance granular, the general appearance suggesting the action of a dilute acid, while at the cathode the fibers became more homogeneous than before. The striation was impaired. The chief chemical changes in the

proteids were an increase in the neutralization precipitate of the watery extract, and a corresponding decrease in the globulin at the cathode. At the anode the neutralization precipitate was increased, but not so much as at the cathode. On the other hand, the globulin extract was more than correspondingly diminished, doubtless because part of the proteid was coagulated. The effect of electrolysis on the salts of muscle was studied by estimating the ash. Striking changes in the distribution of the salts were produced, changes sufficient, if produced within the body, to modify nutrition profoundly.

4. Experiments on electrolysis of tissues within the body (frogs and rabbits).

The effects of the current are discussed under four heads: (1) The chemical action of the poles. (2) The effect of the changes in the distribution of the salts (actual or potential). (3) The changes of temperature produced by the current. (4) The cataphoric action of the current. The antiseptic action of the current was studied in the case of ordinary putrefactive organisms, and it was shown that it is chiefly, if not entirely, around the anode that this action takes place. This is in accordance with the observations of Apostoli on charbon bacilli, published since my paper was written, and it explains the observations of Cohn and Mendelssohn on the effect of strong currents on micrococci. An attempt is made in the paper to connect our knowledge of the action of electrolysis with one or two of its applications in practical surgery and gynecology.—G. N. Stewart, M. A., M. B., *London Lancet*.

**TWO CASES OF CHLOROFORM NARCOSIS, WITH NECROPSIES.**—Having recently been called in by our coroner to examine two cases of death from chloroform, the following brief notes may be of interest.

The first case was that of a well-nourished woman, aged thirty-four, an idiot, who died after inhaling less than three drams of chloroform. On examination, the pericardium was healthy, the heart normal in size and position, slight deposit of fat on outside, muscle rather pale, but presenting no distinct evidence of fatty degeneration. Valves all competent and healthy; no atheroma of aorta. The lungs were both studded from apex to base with miliary tubercles, and there was an old cavity the size of a walnut in the apex of the left. The intestines contained numerous typical tubercular ulcers and many scattered gray tubercles. All the other organs were fairly healthy. In the second case the subject was an emaciated boy aged seven. Here again the heart was healthy; no fatty changes in the muscle; the valves competent and perfectly healthy, with

the exception of a very small patch on the anterior flap mitral valve, which appeared slightly thickened. The lungs were extensively diseased, the right being bound down throughout its greater extent with old pleuritic adhesions, and the lung itself collapsed at the base; the left lung was practically absent, being represented by a mass of soft caseous matter. The kidneys were large and congested, the right containing a small abscess. The spleen and liver were large (amyloid). The right knee-joint was one bag of pus with drainage from two places. In both these cases the heart was noticed to beat after the respiration had ceased, and in both that organ was in a healthy condition, while in both instances there was extensive disease of the lungs, and consequent diminished breathing capacity, in the first case by at least one third, and in the second by even more than that. The practical inference here is that the lungs have quite as much to do with the risk of chloroform anesthesia as the heart has, and it is quite as essential that before giving this anesthetic the lungs should be examined as it is that the heart should be stethoscoped. In both cases death occurred before the intended operation was commenced.—Mr. F. Knowles, *Ibid*.

**A PATHOGENIC BACILLUS IN DECOMPOSED URINE.**—Krogus (*La Semaine Médicale*, No. 31) has found a bacillus in the purulent urine of old cases of stricture, cystitis, and pyelonephritis, which he thinks plays an important rôle in urine infection. Out of ten cases, the bacillus, which has not yet been described, was found three times. It belongs to the rod-like forms, the length varying from 1.8 to 3.6  $\mu$ , with rounded ends. It does not produce spores, and is easily stained by the aniline colors, which are easily removed by the method of Gram. It liquefies gelatine, and gives off the ammoniacal smell peculiar to decomposed urine. Urea is rapidly changed into carbonate of ammonium and water. Pure cultures injected into the veins or peritoneum of a rabbit produced death in from two hours to a few days. With age the culture increases in virulence. After vaccination the part is reddened, swollen, and later gangrenous, after which the dead portion is cast off, accompanied by an ammoniacal odor, fever, convulsions, and coma. Sterilized filtrates obtained with a porcelain filter present the same toxic symptoms. The writer names this germ the *uro bacillus liquefactionis septicus*.

**SCLERODERMA AND ITS TREATMENT.**—Dr. A. Llopis reports and figures in *El Siglo Médico* a case of scleroderma occurring in a woman of forty-five years of age and affecting both mam-



mæ, which were of stony hardness and atrophied on the surface, with the exception of the nipple being covered with large dark scales—psoriasis nigricans. The patient complained greatly of constriction of the chest, which prevented her breathing easily. The left arm was also affected. Before being seen by Dr. Llopis, three skillful practitioners had at different times diagnosed cancer and had advised operative measures. Dr. Llopis diagnosed scleroderma adutorum, and ordered a nutritive diet, arsenic internally, an alkaline wash, frictions of cod-liver oil for the psoriasis, and soothing ointment to be applied to the nipple, which was raw and painful. After about ten days of this treatment there was some improvement to the touch and also some diminution of the difficulty of breathing. The amelioration was, however, only temporary. The arsenic was discontinued, and mercurial inunctions, combined with aromatic vapor baths, ordered, which were continued until constitutional symptoms began to present themselves. This treatment, again, was followed by general improvement, and Dr. Llopis proposes after a time to recommence the mercurial inunctions.—*London Lancet*.

SIMULO is the *capparis coriacea*, a Peruvian shrub, similar to that of Europe, which furnishes what is known as "capers." The seeds of simulo have been used in the treatment of epilepsy and hysteria.

The Therapeutic Gazette, October, 1890, says, quoting the American Journal of Insanity, July, 1890, that Dr. V. Paulet reports a number of cases of hysteria treated with simulo, in which it appears to have decidedly good effects. He had also employed the drug in a case of ovaritis with severe pain, and one of double pregnancy accompanied by nervous palpitation, violent headache, and complete insomnia, and obtained absolute relief in both cases. As regards its use in epilepsy, he does not think that it can supplant the bromides, but that in some cases and under certain conditions, not very well defined as yet, when the bromides seem inefficacious or contra-indicated, it may be very useful. In one of his cases also chorea was apparently benefited by simulo.

The alcoholic tincture of the drug is a bad form for administration in epilepsy and hystero-epilepsy, since if given in any quantity the alcohol may neutralize the good effects. As regards the safety of the medicine, he considers it quite innocuous in large doses. It appears to have, he says, no effect on the pulse or respiration; it causes no depression, no mental excitement, and no disorder of digestion.

TUBERCULAR PHARYNGITIS.—The *Deutsche Medizinal-Zeitung*, September 25, 1890, contains the following conclusions of Dr. Aigre, as published in *El Siglo Medico*, No. 90, 1889.

Miliary tuberculosis of the pharynx is a rare disease. There is no doubt as to the exciting causes. The affection may exist without a lesion of the larynx. The condition is anatomico-physiologically a subacute or acute tubercular pharyngitis. The lesion appears to concentrate itself upon the mucous membrane and about the glands, and no disposition is observed to extend deeply to the vessels or between the muscular fibers. Tubercle bacilli are present, with a large number of various other micro-organisms, which take an active part in the ulcerative process. The pains in the ears which so frequently occur probably depend upon an extension of the disease to the Eustachian tube. Infarction of the cervical glands is not a constant symptom. Constitutional treatment is of no avail. Means should be used to relieve the difficulty of deglutition to permit of liberal and full alimentation, as the best treatment of tuberculosis. Local treatment fails. As palliative measures, nutritive enemata and local applications, four or five times daily, of a combination of one part of morphine with twenty-five of glycerine, or of a solution of one part of cocaine to fifty of water, or both combined, are indicated.

BROMIFORM IN WHOOPING COUGH.—About six weeks ago my attention was called to this drug by an article in a German paper, and about that time an article was also published in the Medical Record by Dr. Fischer, reporting some sixteen cases in which he had administered it with marked benefit. By this time I had procured the medicine, and have now had experience with it in six cases. In five cases there has been marked improvement, although it was not a fair trial, because they had passed pretty well along into the second stage and had commenced to recover. In some of these cases there were thirty paroxysms a day previous to administering the drug, and in four days the paroxysms had been reduced to ten. It has rather a sharp, pungent odor, and is best administered in syrup of acacia. I usually combine it with a little paregoric. The dose for a child two years of age is two drops, a child four years old four or five drops. Usually the administration of from twenty to sixty drops in five or six days lessens the number of paroxysms. It is best given after meals, and the children to whom I have administered it have made no objection to taking it. It is recommended by several of the leading practitioners in Vienna, and I bring it before the Society because we



are having considerable whooping cough, and I think it would be well to give it a trial.—*Dr. C. W. Earle, American Journal of Obstetrics.*

**ACUTE EPIDEMIC BRIGHT'S DISEASE.** Flossinger (*Gazette Médicale de Paris*), contributes a series of fourteen cases of what he regards as an acute infectious inflammation of the kidneys. He admits the possible relation of the poison of scarlet fever to this trouble, but thinks that it is excluded from the absolute absence of that disease from the neighborhood. It is, of course, difficult to determine the infectious agent. M. Roux has obtained from the urine a bacillus similar to that found by Eberth; it proved harmless to rabbits, whether it is pathogenic for man has, of course, not been determined.

**TREATMENT OF HEMORRHOIDS.**—The extreme difficulty experienced in dealing with prolapsed and engorged hemorrhoids makes any thing that will deal successfully with the symptoms, pain, itching, tenesmus, and contracture of the sphincter of great importance. An operation in many cases can not be undertaken until these symptoms subside, or the patient will often not submit to radical procedures. Under these circumstances Alvin (*La Semaine Médicale*) recommends the application of a sponge, that is mounted upon a handle and dipped in very hot water ( $53^{\circ}$  to  $66^{\circ}$  C.), to the anal region. This proceeding is repeated five or six times at each séance. He claims that under this treatment all of the troublesome symptoms cease, the tumors are gradually reduced, and if the remedy is persisted with for some weeks the tumors finally disappear, and with this comes a sensible diminution of the anal contracture.—*Journal American Medical Association.*

**TESTING WATER.**—Among the scraps of erroneous information which appear in scientific journals with more or less regularity is one about testing the purity of water by the addition of a little pure sugar. It is said that when water is so treated, any organic matter present is after a time discovered in the form of black specks floating in the liquid.

This scrap is on its rounds again, having possibly made a transatlantic journey since its last appearance here, and the method referred to is now credited to a professor in a Western university.

The truth about the matter, as has before been stated in this journal, is that the test referred to was originally proposed by Heisch for the detection of a fungus supposed to be peculiar to sewage. Pure sugar was added to

the suspected water in the proportion of about half a gram to one hundred cubic centimeters in a stoppered bottle, and the bottle, placed in a strong light, was kept at a temperature of  $80^{\circ}$  F. for several hours. It was then examined for the fungus, which if present was disclosed as a distinct turbidity to the naked eye, and under a power of 250 diameters was found to consist of small spherical cells. Heisch believed that the cells thus developed were distinct evidence that the water was contaminated with sewage, but Frankland showed that the spores of this particular fungus were present in all waters that had been exposed even momentarily to the air, and that their development was due simply to the presence of phosphates in the water. The addition of even a minute trace of any phosphate was sufficient to develop the fungus in any water under the conditions above stated.

From this it will easily be seen that the so-called sugar test is not only of no value for the purpose for which it was recommended, but is positively misleading, and consequently dangerous.

It ought to be well understood that there is no "handy" test for the purity of water. It is sometimes easy enough to show very promptly that a given water is unfit for drinking, but to make sure of its safety is quite another matter.

It is very evident that the dissemination of misinformation on such a subject is calculated to do much harm, and those who are concerned with preserving health should not fail to show, whenever opportunity offers, the danger of forming conclusions as to the purity of water by "popular" or easy tests.—*Druggists' Circular.*

**SUPRA-ORBITAL NEURALGIA.**—This patient, an old gentleman, was admitted to the hospital suffering from supra-orbital neuralgia so intense in character that he could neither eat, talk, or swallow, the least movement of his jaws or of the supra-orbital muscles giving intense pain. Before resecting the nerve it was determined to try what electricity would do for him, all medical means having been exhausted in vain. Improvement began with the first application of electricity, and within ten days he was entirely relieved of all pain or discomfort.—*Times and Register.*

THE Imperial authorities of Russia have invited Sir Joseph Lister, Dr. Koch, and Prof. Pasteur to a conference, with a view to establishing a bacteriological institute at St. Petersburg. Sir Joseph Lister was unable to accept the invitation, and Mr. Watson Cheyne recently left London to take his place as the English representative.

# The American Practitioner and News

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## HYPNOTISM AND CRIME.

In a recent article the editor of this journal stated that "mesmerism" and its twin brother, hypnotism, had been posing before the world for more than a century without bearing fruit for science or the good of man, while it was becoming more and more a power for evil in the hands of the wicked.

Since this statement was made facts attesting their truth have multiplied. Not a few minor examples of the dangers of the power have come to light, while the world has been startled by a shocking murder in which one of the parties to the crime claimed immunity of responsibility on the ground that she was at the time of its commission under the hypnotic spell. The trial of Michel Eyraud and his sensitive accomplice, Gabrielle Bompard, for the murder of M. Gouffé in Paris, makes a new chapter in the history of crime, since it is the first case in which post-hypnotic suggestion has been put forward by the defense and allowed by the judge and jury as an extenuating circumstance in the doing of murder.

That a hypnotic sensitive can be made to carry out to the letter the unspoken suggestions of his master, who wills that he shall do murder at the time when the hypnotic influence is on,

is startling; but that the same sensitive should to-day receive a command to kill some person at a stated time (say two weeks hence), be apparently in his right mind for that space of time, and then automatically do the deed, being unconscious of the act, and therefore not responsible for it, is simply appalling.

Such, however, is just what post-hypnotic suggestion means, and such was the plea gravely urged by the counsel of Gabrielle Bompard, and ably supported by the testimony of the world-famous master of medical jurisprudence, M. Liégeois, Professor of Civil Law at Nancy. It is true that this testimony was rebutted by two eminent men of the Paris Medical Faculty, M. Brouardel, and M. Ballet, who represent the so-called orthodox school headed by M. Charcot.

These gentlemen contended that Gabrielle Bompard showed only the signs of a minor degree of hysteria, and that therefore it would be impossible to induce in her such a degree of hypnotism as was necessary for the perpetration, unconsciously, of her crime; but there were found doctors in court to doubt the correctness of the diagnosis, and the School of Nancy seems to have won the day.

The following items from the experience of M. Liégeois, elicited at the trial, point a terrible moral, and ought to be sufficient warrant for putting the exercise of the power of hypnotism under legal restrictions: "He had convinced himself that many hypnotic subjects would carry out the simpler orders that he gave them without remembering after awakening what was their real origin, and, indeed, with a strong impression that they were their own spontaneous impulses. A few, but very few, were so 'suggestible' that they would carry out automatically criminal actions which had been ordered during hypnotism without regarding them as criminal; for example, that an affectionate daughter would fire a pistol at her mother's head at an appointed time, a fortnight after such an act had been enjoined upon her when in a state of hypnotism, without any recollection of the command during the interval, or any reminder when the time appointed came. That had indeed happened in M. Liégeois' presence on an occasion when due care was taken that the pistol should be unloaded."



## Notes and Queries.

KOCH.—No medical discovery has ever produced such universal excitement as that of Koch. No proposed method has ever received such attentive audience and been subjected to such careful examination by the profession. The medical world may be said at this time to be engaged in studying the proposed treatment in a clear-headed and scientific manner. The proposal of a new method of treatment is not now received, as it was in the time of Jenner, with scorn and derision. The ultra conservatism which then formed such a prominent characteristic of the profession has given way to the opposite tendency, perhaps to too great a degree. The medical public is somewhat in the state of mind attributed by St. Paul to the Athenians. "For all the Athenians and strangers which were there spent their time in nothing else but either to tell or hear some new thing." The conduct of the great investigator amid all the excitement which the announcement of his work occasioned, and all the honors and distinctions heaped on him by a perhaps too credulous public, has been most discreet. He is a scientist who has, so to speak, been surprised at his work by the public, not an inventor seeking gain, who is prepared to sell to the highest bidder, and the adulation he has received and is receiving serves rather to hinder him in his work than to help him. He has been criticised in some quarters for not having published his processes and the composition of the agent he uses. If he had used it as a secret remedy, after the manner of charlatans, the criticism would be justified; but since his experiments are not yet complete, nor conclusions fully formed, he is right, from every point of view, to maintain his silence.

That the remedy cures lupus, seems to be proved. That the cure will be permanent, is yet in doubt. That it shows wonderful effect in laryngeal and pharyngeal tuberculosis, the late communication of Lennox Browne to the British Medical Journal leaves no practical doubt. Time has not yet been allowed to show permanency of the improvement. Certain cases of surgical tuberculosis respond well, but in these cases also we need more time to prove

permanency. Lung cases seem thus far not to yield to its influence so freely. In fact, in advanced cases it seems dangerous, and has proved fatal. Certain it is, however, that a curious and interesting reaction shows itself in tuberculous centers in persons subjected to its influence, a reaction which shows a distinct tendency of the agent to parts affected with this disease. It seems to be proved that this diagnostic reaction may be relied on. Reaction only occurs where tuberculosis exists. If this be the only reliable quality shown to exist in the agent, it will amply justify all the time and labor which have been expended in its elaboration. The profession must therefore philosophically wait and watch until such an array of facts has been accumulated and collated as will furnish a logical basis for conclusion. We sincerely trust that we shall not be compelled to record the gradual but certain destruction of our hopes, as was necessary in the case of the Bergeon treatment, the pneumatic cabinet, and other methods aimed at this greatest enemy of mankind.

We of the regular profession are unfortunate in being compelled to be associated in the public mind with all manner of quacks, pretenders, and charlatans, and our intelligent fellow-citizens show but little power of differentiation. The secular press, partly through ignorance, but mostly through in error (since it finds its reckoning in the advertisements of the quacks), aids in this delusion. Thus we were much disgusted a short time ago by the heading in a prominent daily in heavy type that "Dr. X. is coming home with lymph." Shortly afterward an equally prominent headline announced that the doctor had arrived, and would make arrangements to operate. It was somewhat amusing to note in the same paragraph, but hidden away at the bottom and without any headline at all, that the fourteen patients who had already been treated in a prominent hospital in town were doing well. From time to time we are favored with a statement in regard to Dr. X.'s arrangements, and finally three quarters of a column including three of these elegant and artistic productions which characterize the daily press of the day—one a picture of the doctor, one of the method of injection,



and one of the patient ready for operation—announcing that Dr. X. has begun to operate. If all this matter had been placed in the advertising columns in company with that class of literature with which alone it could find legitimate association, we would not have deigned to notice it, but to have it foisted upon the long-suffering public as news is more than we can be expected to endure in silence. If a medical man chooses to give up respectable medical associations, and place himself in the class of those who are debarred such association, it is his own affair, and he has the right to do so; but foisting one's self or allowing one's self (which is much the same thing) to be foisted on the public in the news columns is a practice which should receive the severest professional condemnation.—*Maryland Medical Journal*.

KOCH'S TREATMENT IN LUPUS.—Professor Haslund, of Copenhagen, says with regard to the new treatment generally (*Hospitals-tidende*, December 17th) that from what he had personally seen at Berlin he had derived the impression that the phenomena produced by the injections had not been studied with sufficient accuracy. He had seen, during his visit to the German capital, from forty to fifty cases of lupus in different stages of the treatment, and in forty-one of them he had carefully followed the course of events for some time. He had not seen one single case of complete cure, though several cases had been shown to him as "cured." The absence of reaction after a certain number of injections does not, according to Haslund, indicate that the disease is cured. In many cases in which injections had caused no reaction recent nodules of lupus have been found, both in the scars and in the adjoining tissues. The experiments on cutaneous tuberculosis, he thinks, should have been intrusted to competent dermatologists, whose practiced eyes would have distinguished apparent from real cure. As illustrations of the errors which some observers have fallen into for want of this special knowledge, Haslund mentions that in one of the cases presented by Prof. von Bergmann as not showing a single nodule, and therefore as being completely cured, he himself had the day before carefully examined the patient in con-

junction with a German specialist, and they both had seen a large number of lupus nodules, apparently quite recent, round the edges of the cicatrix. Again, a hospital surgeon showed a patient with extensive lupus of the face, in whom he pointed out that on the borders of the diseased patch the skin, with the orifices of hair and sebaceous follicles, was absolutely normal. This he affirmed to be cured lupus. Haslund, on the other hand, asserts positively that these points have never been the seat of lupus at all. Lupus never heals without a scar, and, moreover, the cicatrization of an ulcerated patch of lupus does not prove that it is cured. Errors of this kind, Haslund says, were very common in the Berlin clinics, especially at first.

With regard to the local reaction in lupus, the description given by Koch and others can not be accepted as altogether typical. These descriptions hold good only (1) in ulcerated lupus, (2) when the nodules have reached the surface of the skin, and (3) in non-ulcerated lupus hypertrophicus. When the nodules are not prominent, and in cases of sclerozing lupus, only redness and swelling of the surface are seen. There is no exudation, and hence no crusts are formed. When the swelling has gone down there is abundant desquamation of large scales. This type of reaction is also seen, after several injections have been given, in other cases of lupus which at first reacted in the ordinary way. According to Haslund, the destructive action of the fluid is exerted only on the most superficial tuberculous tissue, and does not reach the deeper nodules. His conclusion is that Koch's method, while it is an auxiliary remedy of the highest importance, must be supplemented by surgical treatment (galvano-cautery, electrolysis, scraping, etc.). An enthusiastic German dermatologist was heard to say that he would throw away his curette, but Haslund surmises that he will soon have to take it up again.—*British Medical Journal*.

THE KOCH REMEDY FOR TUBERCULOSIS.—It is now about two months since Koch made the announcement of his "remedy" for tuberculosis, and it may be said to have had a fair opportunity to show what it would accomplish. Of course there has not been time to show

cures without possibility of recurrence — years might not suffice for this; but there has been plenty of time to show if it could produce improvement of steadily progressive character and furnish ground for hope that eventually some form of tuberculo-sis would be, in a fair sense of the term, cured through its influence upon the human economy.

The readers of the Reporter have been given, in a series of carefully prepared special articles, an account of the experiments made with the "lymph" in all parts of the world, with their results, and the opinion of men of recognized ability in regard to the value of it.

Unfortunately, after all, it is impossible to say that the lymph can be relied upon for any of the purposes indicated by Koch in his first announcement. It is not a trustworthy means of diagnosis or a reliable remedy for any form of tuberculo-sis, while experience has demonstrated that it is dangerous when used either for diagnosis or for treatment.

Prof. Virchow, who has been making investigations on the lymph treatment, last week asserted, after twenty-one *post-mortem* examinations of patients who had died after injection, that the Koch method is not what had been hoped or claimed for it, and that there can be no permanent benefit from it to the patient. The tubercle bacilli he says are not killed by the lymph, but are only driven out to take lodgment elsewhere. Thus, according to his theory, tuberculous affections, while they may disappear from one part of the body, break out in other places in as discouraging a form as ever. To this we may add that the phenomena of certain cases, in which it has been asserted that unsuspected tuberculosis of the lungs had been revealed by treatment with the lymph, warrant the belief that the lymph may set up a tuberculous process in persons entirely free from disease.

The Reporter has, as stated above, contained a very carefully prepared synopsis of the developments in connection with the testing of Koch's "remedy," and the readers of the Reporter will be promptly informed of any developments in connection with the subject; but we doubt that it will require as much space as has been devoted to it in the last four issues,

for it seems hardly worth while to continue the weekly publication of accounts which are so largely mere repetitions of fruitless or injurious experiments on human subjects.

Furthermore, we believe the time has come when such experiments ought to be discontinued, or at least restricted to a very small sphere. In this country we think they ought to be wholly abandoned. Last week a large number of tuberculous patients in the Philadelphia (alms-house) Hospital refused to submit to be experimented on, and although the physicians with the lymph from Koch's laboratory were chagrined, we can not believe all of them thought the patients were unwise.

We would suggest that American patients be allowed the benefit of such medical and surgical skill as exist in the profession until the Germans have shown that Koch's "lymph" is really of use. Let the latter do as much experimenting as they may consider wise and right, but let our countrymen go back—to those who left them—to the legitimate methods practiced before it was heard of.

It is with regret for the disappointed expectations against which we warned our readers two months ago that we suggest to them to read again and carefully the editorial in the Reporter of November 15, 1890, and to reflect on the confirmation of its statements which has been supplied by the history of Koch's "remedy" since that editorial was published.—*Med. and Surg. Reporter*.

DEATH IN A DENTIST'S CHAIR FROM COCAINE INJECTIONS.—The *Journal für Zahnheilkunde*, September 25, 1890, reports a case of death in a dentist's chair from injections of cocaine into the gum, given for the purpose of inducing anesthesia for the extraction of roots of teeth. The patient was a woman, twenty-nine years old, apparently perfectly healthy but very nervous. The extraction was painless, and nothing abnormal was noted. The operator withdrew from the patient's chair to get some water for the patient to rinse her mouth with, and on his return found her motionless. Physicians were summoned and artificial respiration was practiced, but without success. The autopsy disclosed the fact that three injections



had been given, which served for the extraction of three roots. The quantity of cocaine in each injection was two centigrams, or one third of a grain. The *Journal*, after commenting upon the dangers of cocaine, refers to nine cases of fatal poisoning reported by Dufournier, in the *Archives générales de Médecine*. One of these cases, however, is doubtful, as the patient took a mixture of chloral and cocaine. None of them happened to dentists, and the *Journal* thinks the case it reports the only fatal one occurring in the practice of a dentist. This may be true, but serious and well-nigh fatal cases undoubtedly have occurred. The *British Medical Journal*, February 9, 1889, p. 311, refers to one in which one grain and a third of cocaine was used.

To show how uncertain the action of cocaine may be, a case may be mentioned in which one seventh of a grain injected into the eyelid produced very serious poisoning. The case is reported by the *British Medical Journal* in the article already referred to. It would appear not to be safe to inject a larger quantity than one half or three fourths of a grain, especially into very vascular tissues, from which absorption is likely to be rapid and the consequent danger of a maximum effect upon the heart is greatest.

**PEROXYDE OF HYDROGEN.**—Peroxide of hydrogen is a drug which has been gradually and steadily gaining in favor, and which has yielded to each who has faithfully tried it results so constant and so satisfactory that he has learned to depend upon it. As ordinarily found in the shops, peroxide of hydrogen is a 3.2 per cent solution, yielding fifteen times its bulk of oxygen. This solution is far more potent than is water charged with fifteen times its volume of oxygen, since in the peroxide preparations the gas is given off in its nascent state and is peculiarly powerful in its chemical affinities.

There is abundant evidence as to the value of the peroxide, from both the clinical and the experimental standpoint. The number of those who have reported excellent results from its use is very large, and to this must be added the testimony of the bacteriologists, who find in this drug a potent and almost immediate

germicide. It is devoid of septic properties, its worst effect being, when used in a too concentrated form, to cause some local pain and irritation. It is applicable in all cases where pus is present, and where the discharge is foul and profuse its effect is admirable. In suppurating otitis media, in purulent conjunctivitis, the aurists and ophthalmologists have long prized it as one of their most valuable medicaments. In the sloughing inflammations following scarlet fever and diphtheria the laryngologists place great confidence in its powers. Surgeons, however, in whose work it might prove generally valuable, have been somewhat slow to recognize its virtues. But its use in a great variety of sloughing and suppurating cases has given results better than those obtained from any other germicide, bichloride of mercury not excepted. Where the discharging area is represented by a surface of granulations the drug can be applied by means of an atomizer. This enables a small quantity to reach every portion of the infected surface. In the case of a suppurating fistula or cavity the peroxide may be injected by means of a syringe. Immediately following its application to a purulent surface, an active effervescence goes on, and every particle of pus which it reaches is destroyed. Not only this, but the microbes, the active agents of pus formation, are also devitalized, so that a large surface can sometimes be rendered aseptic by one or two thorough applications. Even if this result is not reached, the discharge is greatly lessened, and it is by no means uncommon to see a case in which the pus had amounted to drams, so favorably affected that the dressings contain but a few drops of purulent matter.

The strength in which the fifteen-volume solution is used will vary with individual cases. It can be employed without harm in full strength. Where this is painful, one, two, or four parts of water may be added.—*University Magazine*.

**TRANSFUSION OF BLOOD AND SALT SOLUTION.**—Dr. John Marshall, of the University of Pennsylvania, has published in the *Zeitschrift für Physiologische Chemie*, November 11, 1890, a very interesting article in regard to

the transfusion of a mixture of defibrinated blood and salt solution. After briefly indicating the present position of the question of the use of salt solution in transfusion, he gives an account of a number of experiments in which he used a mixture of one part of defibrinated blood of the animal on which he had made the experiment, and nine parts of a 6 to 1,000 solution of chloride of sodium. The result of this method of transfusion was exceedingly satisfactory. The results were studied not only as to the general appearance of the animals, but also by careful investigations of the chemical and microscopical conditions of the blood after transfusion. A similar process could be carried out in the case of human beings, of course, using a mixture of human blood with a salt solution. Salt solutions alone are of a recognized value in preserving life after great loss of blood, but the addition of a certain proportion of blood containing living corpuscles furnishes something besides the mere mechanical distension of the blood-vessels with an innocent circulating fluid, as is the case in transfusion of salt solution alone.—*Medical and Surgical Reporter*.

**HOT WATER FOR SLEEPLESSNESS.**—A most wretched lie-awake of thirty-five years, who thought himself happy if he could get twenty minutes' sleep in twenty-four hours, said: I took hot water, a pint, comfortably hot, one good hour before each of my three meals, and one the last thing at night, naturally unmixed with any thing else. The very first night I slept for three hours on end, turned around and slept again till morning. I have faithfully and regularly continued the hot water, and have never had one bad night since. Pain gradually lessened and went, the shattered nerves became calm and strong, and instead of each night being one long misery spent in wearying for the morning, they are all too short for the sweet, refreshing sleep I now enjoy.—*London Spectator*.

According to the Bureau of Vital Statistics the health of New York in 1890 was better than in 1889, as the death rate was 21.66 per 1,000 against 25 last year. This calculation,

however, is based on an estimated population of 1,631,232. There were 40,230 deaths in the city during 1890, or an average of one in every 13 minutes during the year. In 1889 the deaths were 39,583. There were 39,250 births and 14,992 marriages. Over one fourth of all the deaths were of children under one year old. Phthisis and pneumonia were the chief causes of death, they being responsible for 10,418 of the deaths. There were only two fatal cases of smallpox.

THE first of the proposed "Leprosoria" in the Baltic provinces will, it is hoped, be ready for occupation in the spring. A valuable piece of land having been presented for the purpose by the land owners at Nennal, a village seventy versts distant from Dorpat, it is proposed to locate upon this forty or fifty lepers who are still able to work. A small branch establishment, or hospital, for severe cases—especially such as require operative measures—is to be established in the immediate vicinity of Dorpat. This hospital will contain ten or fifteen beds. It will be employed also as an observation station, where patients may be kept before being sent on to Nennal.

Pisa has been heavily visited by an epidemic of typhoid fever. On the 3d ult. as many as eighty cases were reported. The disease assumes a peculiarly malignant form, running rapidly into "polmonite infettiva" (infectious pneumonia). The physicians, worn out by their attendance on the sufferers, have had to be reinforced by twenty-six students of the sixth year. The city seems depopulated (spopolata), but there is no panic. The Board of Health has taken active measures to limit the area of the disease, and already a sensible diminution in the number of cases is announced. *Lancet*.

THE comparatively rare accident of fracture of a rib by muscular action took place in Philadelphia, January 7, 1891. A woman, fifty-nine years old, had gone into a shoe store to purchase a pair of shoes. After trying them on she stooped over to button them, when she heard something snap, and at the same time



experienced a stinging sensation in her side. As the pain continued to grow greater she went to the Episcopal Hospital, where Dr. Boger, upon examination, found that one of her ribs was broken.—*Medical and Surgical Reporter*.

**MICRO-ORGANISMS IN CITIES.**—Prof. Tarnier, in his course of lectures on obstetrics, in 1890, referred to M. Miquel's researches on the relative abundance of micro-organisms in different places. One to the cubic meter of air is the proportion at the top of a high mountain. In the Parc de Montsouris in the south of Paris, M. Miquel found 480 micro-organisms to the cubic meter of air, while in the Rue de Rivoli the proportion was 3,480. In a new room in the Rue Censier he found 4,500 to the cubic meter; more, that is to say, than in the center of Paris in the open air. In a room in the Rue Monge he counted 36,000, in the Hotel Dieu 40,000, and in the Pitié, an older hospital, 319,000 micro-organisms to the cubic meter. At the Observatory Montsouris, 650,000 microbes were found in a gram (15 grains) of dust; in the room in the Rue Monge the amount was 2,100,000. In the hospitals the proportion was so high that counting the number of microbes in a whole gram of dust was found to be impossible. The dust is the great conveyor of micro-organisms. At 2 A. M., when a city is most quiet, the fewest germs are to be found in the air; at 8 A. M. the industry of domestic servants and dustmen has already made the air to teem with germs. At 2 P. M. the proportion has again greatly fallen; at 7 P. M. it is once more high, for many houses are being "tidied up;" besides sundry kitchen operations are unhygienic. Thus the "small hours," unfavorable in many respects to patients hovering between life and death, are the least septic of the twenty-four. The day proportions indicate that household duties cause more septic diffusion than is excited by traffic and industry. *British Medical Journal*.

**WOMEN AND WOMEN PHYSICIANS IN INDIA.** The Indian Medical Gazette, November, 1890, says that the native women frequenting the Balrampur Hospital, Lucknow, are so much

behind the age that they elect the services of male in preference to female doctors. This is what Dr. Rice, the Inspector-General of Civil Hospitals, says on the subject: "With regard to the nine hundred and thirty-four major surgical operations done in the female hospitals, it is but right that I should state that the large majority of them have been done by the Civil or Assistant Surgeons, and this is right generally. The greater part of them are of a nature unconnected with the sex of the sufferer. I have myself seen women insist that the operation should be done by the male doctor; and not only that, but that they should be done in the male hospital, so as to make sure of his operating. The principle of management is that, as far as we are concerned, every woman shall be left a free agent in the selection of the particular division of the hospital in which she shall be treated."

**LANTANINE AS FEBRIFUGE.**—The *Journal de Medecine*, October 12, 1890, speaks of an alkaloid extracted from the *Lantana Brasiliensis* or *Yerba sagrada*. It is described as a white body, in the form of a fine powder, bitter, presenting alkaloid reactions and forming salts with acids. It exerts a moderating action upon the circulation, like that of quinine, retarding nutrition and lowering temperature. It is employed in intermittent fevers and as an antipyretic. In intermittent fevers it should be administered immediately after a paroxysm. It often succeeds where quinine has failed. The dose is fifteen or thirty grains a day, in pills.

**THE American Electro-Therapeutic Association** was organized on the 22d of January, 1891, at the Academy of Medicine, No. 17 West Forty-third Street, New York, by the adoption of a constitution and by-laws, and the election of the following officers: President, G. Betton Massey, M. D., Philadelphia; Vice-presidents, William James Morton, M. D., and Augustin H. Goelet, M. D., New York; Secretary, William H. Walling, M. D., Philadelphia; Treasurer, George H. Rohe, M. D., Baltimore; Executive Council, Horatio R. Bigelow, M. D., Philadelphia, Franklin H. Martin, M. D., Chicago, Wm. F. Hutchinson,

M. D., Providence, R. I., Frederic Peterson, M. D. New York, and Chauncey D. Palmer, M. D., Cincinnati, O.

The object of the Association, as stated in Article II of the Constitution, is "The cultivation and promotion of knowledge in whatever relates to the application of electricity in medicine and surgery." The Association starts with a strong and vigorous membership, and has every prospect of a most useful and successful career. The next meeting will be held in Philadelphia, in September of this year.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following distinguished members of the medical profession abroad have been announced: Dr. Carl Weigert, Professor in the Pathological Department of the Senckenberg Institute, from blood poisoning. Dr. Friederich Salzer, Extraordinary Professor of Surgery and *Primararzt* in the General Hospital, Vienna. Dr. W. Ettlinger, Physician-Accoucheur to the Russian Imperial family, who, among other medals and orders, had the Crimean medal.

**SALOL IN TYPHOID FEVER.**—Whatever the differences of opinion as to the cause of typhoid fever, it is pretty definitely settled that after a certain stage the disease is a septicemia, due to the ulceration of Peyer's glands. The natural tendency of the fever is to terminate about either the fourteenth or the twenty-first day, and when an intestinal antiseptic, such as salol, is used, which prevents the ulceration from infecting the system, the natural tendency to recovery is increased.—*Cahall, Medical News.*

It is reported that physicians have been sent by the Russian government to Asia Minor to test by experiment the treatment of cholera with the ferubia sumbul, a plant growing in Turkestan and possessing antispasmodic properties.

Prof. Koch states that the government must prepare the "lymph" used in the cure of tuberculosis. He also asserts that the recurrence of tuberculosis after treatment by his method is extremely rare.

Eight patients are being treated in the New York Post Graduate Hospital by Koch's lymph. Three of them are cases of lupus: four are cases of phthisis pulmonaris, and one laryngeal tuberculosis. The inoculations are in charge of Dr. W. C. Balby, who was for a long time a student in Koch's laboratory, assisted by the director of the laboratory, Dr. J. H. Linsley.

It is stated in the newspapers that a San Francisco physician has cured a number of cases of cancer, and that three pronounced cases from the New York Cancer Hospital are now on the way to San Francisco in charge of a prominent surgeon from New York, to be operated upon. The result will perhaps determine whether the treatment shall be introduced into the New York Hospital.

THE Russian Government has announced that, at the end of five years, the decimal system of weights and measures shall be the only legal standard. Great Britain and the United States will then be the only civilized nations which use the ancient systems.

### SPECIAL NOTICE.

**SYR HYPOPHOS. FELLOWS.** Dispensed in Bottles containing 20 oz. by weight or about 16 oz. by measure.—Mr. Fellows takes this opportunity to thank the Profession for their expressed recognition of his invention.

To the Medical Gentlemen who have kindly permitted the publication of their testimony in favor of his Hypophosphites, and who, by letter or otherwise, have expressed their disapproval of the fraudulent imitations, he is especially grateful.

With its increasing fame there has been a corresponding increase of imitations, and though this is a compliment in the sense that "only the best things are worth counterfeiting," yet Mr. Fellows would respectfully request the Profession to guard against the misleading advertisements and fallacious compounds of notorious imitators.

**Symptoms Against Substitution.** Fellows Hypophosphites is dispensed in bottles containing 15 oz. by measure; the address, Fellows & Co., St. John, N. B., blown in the same J. I. Fellows, St. John, N. B., in watermark upon the yellow wrapper; it is hermetically corked, and sealed with crimson capring; is heavy, slightly alkaline, has a pleasantly bitter taste, and deposits a flocculent brown precipitate of Hypophosphite of Magnesia when left undisturbed for forty-eight hours.

**NOTE.**—Though this precipitate loses the appearance, its presence has been found unobstructive to its full remedial effect.

JAMES I. FELLOWS,  
Chemist, 48 Vesey Street, New York.



# THE AMERICAN PRACTITIONER AND NEWS

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

## Original Articles.

### THE TREATMENT OF ENDOMETRITIS.\*

BY J. F. PURDOM, M. D.

The treatment of endometritis is necessarily a broad subject, comprehending as it does every degree of inflammation to which the mucous membrane of the uterus is subject, from the external os to the fundus of the organ, be the cause what it may. Furthermore, it is a subject upon which there is a diversity of opinion, and to give any thing like a complete synopsis of the literature on the subject would be a heavy task and make heavy reading, consequently I shall offer only a few conclusions drawn from the literature of the subject and a country practice.

In the first place all inflammations are acute in the beginning, and our greatest success follows early appropriate treatment. In private practice the majority of cases of endometritis have parturition, abortion, or disturbed menstruation as the exciting cause, while the disease is preceded or accompanied by some degree of metritis, occurring most frequently in patients with a constitutional predisposition to inflammation of the mucous membrane. To be sure there are many other conditions, any one of which may act as the exciting cause of endometritis, such as displacements of the uterus, ill-fitting pessaries, efforts to prevent conception, intemperate coition, syphilis, gonorrhea, improper use of the sound, etc. Yet, when the disease is from any of these causes, we find it

either preceded or accompanied by inflammation of some contiguous tissue.

The very nature of the etiology, differing so widely in different cases as it does, necessarily makes each case of endometritis a subject within itself, and furnishes us with an underlying principle that should govern us in the investigation and treatment of every case; namely, that we adjust carefully our treatment both local and general to meet the indications of the case in hand. And just here I think we find a reason for the existing wide diversity of opinion with reference to the treatment of endometritis.

The general principle upon which perhaps all men in the profession are agreed is the attempt to establish a healthy state of the assimilative and eliminative functions of the body, upon which a healthy balance of the nervous system so much depends. But the effort to accomplish the results above referred to necessarily leads to a special line of treatment in each case.

It may be possible that acute corporeal endometritis may exist independently of cervical endometritis, but such a condition is never seen in chronic cases. Cases of cervical endometritis are greatly in excess of those of corporeal endometritis; but the infrequency of the latter detracts nothing from its importance.

A case of simple acute endometritis, cervical or cervico-corporeal, without septic infection, or laceration requiring operative procedure, will generally yield to very simple treatment, such as rest in bed, and a liberal dose of calomel, followed by saline cathartics—a free vaginal douche of hot water every four to six hours for the first twenty-four or forty-eight hours, after which the uterus, if displaced, should be carefully replaced and retained in position by tampons of absorbent cotton saturated with glycerine and borate of soda, the hot douche being

\*Read before the Central Kentucky District Medical Association, July 16, 1890.

freely used each time the tampon is changed. The douche is to be alternated with the cotton, whether there be any displacement or not, until the tenderness is relieved. The douche should always be given from a fountain syringe and in large quantity, the patient being on her back.

As a rule the above treatment will restore the uterus to a healthy state. But such cases are seldom met with, because of the timidity or awkwardness of the doctor in stating to the patient the necessity of proper treatment in time, or a want of proper observation of symptoms in the early history of the case, or because (what happens in the majority of cases) the patient, though suffering, hopes to be better soon and does not feel the necessity of applying for treatment; or perhaps, if married, her husband refuses to let her consult the doctor. For such reasons the disease passes from an acute to a subacute or chronic stage before proper treatment is instituted.

When the acute stage has subsided and the endometrium is still in an unhealthy condition we find a course of treatment indicated that was not necessary before, and that will depend to a great degree upon the individual indications.

Position is a rule that will apply to all cases; but the means of restoring to and maintaining the organ in a healthy position is a question that must be decided by the exigencies of each individual case. I will further say that every displaced uterus produces some reflex disturbances, and most, if not all cases are accompanied by endometritis to a greater or less degree.

Nobody but an ignorant man would condemn all pessaries, and it would be equally unwise to extol one particular make to the exclusion of others. It is not the fault of the pessary that has made this device so unpopular with many practitioners, but rather the want of a properly selected case or correctly adjusted instrument. Given a case of endometritis with displacement resulting from lacerated perineum destroying vaginal support, it would be useless to apply a pessary in such a case without first restoring the perineal body by an appropriate operation. What is true of this case is equally so in a case of lacerated cervix requiring trachelorrhaphy.

Other things being equal, in proportion as we maintain a normal position of the uterus, will we be successful in the application of remedies to the diseased endometrium. For we can not expect an inflamed endometrium to respond to the action of remedies without free drainage; neither may we expect healthy tissue without healthy circulation, and a displaced uterus can neither have free drainage or enjoy healthy circulation, but must continue those reflex disturbances which react upon its already unhealthy condition.

After the acute symptoms are relieved, Churchill's tincture of iodine will be found useful in perhaps more cases than any one remedy known to the profession as a local application, either used alone or with from twenty-five to fifty per cent carbolic acid, as indicated by the condition of the endometrium at the time of the application; though we find some cases more successfully relieved by glycerized phenol in the same proportion.

Our success will depend much upon a perfect removal of the tenacious mucus or mucopurulent discharge filling the canal in cervical endometritis. Alkalies facilitate its removal, though it will often require the use of the wire curette; after which the application may be made with the pipette or the applicator wrapped with absorbent cotton and dipped in the solution to be used.

Success means thorough treatment, gently carried out; roughness in the use of instruments is entirely unnecessary. With proper care the patient need be made to suffer but little pain or shock, even from the application of suitable remedies to the corporeal endometrium. Very great caution however should be used in making the application from the pipette that no excess of fluid be introduced into the uterus. If not more than from seven to ten drops be used at one introduction of the pipette no trouble need be feared.

In the majority of cases where corporeal endometritis exists to a degree requiring intra-uterine medication, we find the internal os dilated or so dilatable that a proper use of a Palmer's steel dilator at the time of treatment is sufficient and much safer than any kind of tent.



The question as to how often the application should be made to the endometrium is one that can only be decided for each case in its turn, since idiosyncrasy to remedies in some patients, the strength of the application, with the end sought, must all be considered. The time between treatments ranges in non-septic cases anywhere from three to thirty days, but ordinarily the best results are obtained by treatment given about every four or five days; the infrequent applications of once or twice a month being made in rounding up the case with a view to perfect recovery before final dismissal.

After the acute stage we find that all cases are not benefited by the frequent and constant use of the hot vaginal douche, and it should be continued or dispensed with according to the results obtained. The glycerine and soda borate tampon occasionally used will be found beneficial in many cases of subacute or even chronic endometritis when accompanied by a congested state of the vessels of the cervix; but should be seldom used in an anemic patient after the acute stage. I believe subacute or chronic cases that bleed easily when touched by the probe or sound are best treated by first using the dull wire curette, and then making the application of iodine and carbolic acid.

In chronic cases where the mucous membrane has become much thickened by simple glandular hypertrophy producing a non-bleeding surface, or in those in which there is dilatation and hypertrophy of the vessels rather than the glands, with the corresponding symptom of hemorrhage, the sharp spoon-curette should be used perhaps more than once. We should be governed in the repetition of the measure by the results obtained; in fact, the curette should take the place of all destructive escharotics, because we have the action of the curette directly under our control. It is not so with destructive agents.

Equal parts of Churchill's tincture of iodine and carbolic acid should be applied after the use of the sharp curette, unless a more decided hemostatic is required.

In syphilitics the best results will probably be obtained by constitutional treatment, with the local application of a solution of bichloride.

In gonorrheal cases our best measures are

prophylactic; but if the endometrium becomes involved we should attack the disease vigorously at the start with the bichloride solution, 1 to 500, followed by a liberal use of iodoform in liquid alboline. The applications may be repeated as demanded. In all cases produced from any cause whatever, the general health of the patient should be carefully looked after. We should give special attention to regulating the action of the bowels, while we bring to bear all those conditions both remedial and hygienic that combine to produce in the patient the highest possible state of health. Last, but not least, we should use anodynes and hypnotics with caution, for in this class of patients we find the greatest number of morphia habitués.

Z. MITCHELLSBURG, KY.

## NOTES ON RECENT MEDICAL CASES.

BY HENRY A. RILEY, ESQ.

**HEALTH LEGISLATION IN CALIFORNIA AND SOUTH CAROLINA.**—Two curious cases, involving the power of communities to legislate for matters really or falsely alleged to be against public health and morals, come to us from California and South Carolina. The city of San Francisco has, as is well known, a large Chinese population, which is not looked upon with favor by the rest of the community, and a resolution was enacted some time since by the city authorities requiring all the Chinese either to remove outside the city and county of San Francisco, or else to a certain designated portion distant from their present quarters. This excited great indignation among the Chinese, and the courts were at once appealed to in order to prevent the execution of the ordinance.

The United States Circuit Court decided in very plain and curt language that the ordinance was unjust, unconstitutional, and must not be enforced. It said: "The obvious purpose of this order is to forcibly drive out a whole community of twenty odd thousand people, old and young, male and female, citizens of the United States born on the soil and foreigners of the Chinese race, moral and immoral, good, bad, and indifferent, and without respect to circumstances or conditions, from a whole section of the city which they have inhabited, and in

which they have carried on all kinds of business appropriate to a city, mercantile, manufacturing, and otherwise, for more than forty years. Many of them were born there, in their own houses, and are citizens of the United States, entitled to all the rights and privileges under the constitution and laws of the United States that are lawfully enjoyed by any other citizen of the United States." The court in this case did not believe that any "health" or "moral" question was really involved, and nullified the ordinance.

In the South Carolina case the inhabitants of a town near Charleston wished to get the advantage of being considered a health resort, and so passed a resolution forbidding the cultivation of the soil within the corporate limits, except to the extent of one eighth of an acre for each owner of land, and absolutely forbidding the cultivation of rice on the part of any one. The ordinance permitted the cultivation of flowers, vines, fruit, and forest trees without interference. As this ordinance excited opposition it came up in various courts for consideration, until at last the Supreme Court decided that it was valid and could be enforced. The judges held that the powers of local authorities to legislate for the general health could not be overruled by the courts. There will be little doubt felt by thinking persons that the California decision was a just one, but many will question the South Carolina one as giving undue power to local authorities over the use and control of private property. There has undoubtedly been a considerable extension in recent years of the police and health powers of town and city corporations, but the limit has apparently been about reached.

**COMPENSATION FOR MENTAL ANGUISH.**—Mental anguish has recently been decided by courts in Indiana and North Carolina as a good ground for pecuniary damages against telegraph companies for failure to deliver telegrams promptly.

**FEDERAL LAWS ON IMMIGRATION.**—The present Federal laws covering immigration give little satisfaction to thinking persons who look with apprehension at the steady increase of our population from the vicious, pauper, and insane classes of foreign countries, and attempts

are frequently being made to devise means for better supervision either at the embarking or disembarking points. A measure is now before Congress which seems rather crude, and in one point at least unjust and even ridiculous. A section imposes a fine of \$1,000 or imprisonment on any person who shall bring into or land in the United States, by land or otherwise, any alien not lawfully entitled to enter the United States. This would apparently make the conductors of trains arriving from Canada and the captains of steamships responsible for the character of their passengers. It is obvious that such persons can not know the condition and antecedents of the persons who travel with them except in individual cases, and probably a law imposing any responsibility except for actual knowledge would be both oppressive and unconstitutional. The only real remedy in the case of steamships is more stringent laws requiring inspection both in this country and at foreign ports, and imposing a liability upon steamship companies for bringing in improper persons.

It is a little difficult to see exactly what remedies are to be adopted in the case of railroad passengers from Canada and Mexico. The whole matter requires the most intelligent handling in order to secure laws which will prove satisfactory and efficient.

**CHRISTIAN SCIENCE AND THE CUSTODY OF CHILDREN.**—Judge Lewis, of the New York Supreme Court, has just granted the custody of a young child to the grandparents, and taken it away from the parents who were believers in Christian Science. Another child had just died because of the parents' neglect to obtain proper medical treatment, and the court said: "Should I award the custody of Lucy to her mother, she would, if sick, probably be treated as her sister was. While I would not discredit or doubt the soothing, and hence perhaps beneficial influence of prayer upon the mind and feelings of an adult invalid, with the light given me I think it unwise to make a person entertaining such views of treating the sick the custodian of a child so young as Lucy is." In a Pennsylvania case a while since the same decision was arrived at, and the children taken from the father and given to the grandparents.



because he had refused to call a physician for his wife and three other children sick with diphtheria, but had himself applied to them a treatment which consisted in pricking their skin with an instrument full of needles and then rubbing the parts with an irritating oil, by reason whereof they died.

**PHYSICIANS AND TOKAY WINE.**—An enterprising dealer in Hungarian Tokay wine, in New York, publishes a remarkable list of recommendations for his wares from some of the most prominent physicians of the country, and it is now claimed he sells wines, on the basis of their good opinion, which are of an entirely different character. The physicians have tried to withdraw their recommendations in some instances, but they are still being used.

**DAMAGES FOR RAPE.**—In a recent New York case, where damages were sought for on account of a rape resulting in pregnancy and attendant injuries, it was held to be proper to admit the opinion of a medical expert that pregnancy would probably not result from the first intercourse, accomplished by force against the female's will.

It was also held competent to admit evidence of dangerously familiar and imprudent conduct by plaintiff with other young men living in the same house with her at about the time when, from the birth of the child, she must have become pregnant. It was further held to be proper to allow testimony that on the day following the date of the alleged outrage plaintiff rode with defendant to a place some miles distant from her home; that she afterward visited at his house; that she frequently conversed with him in an apparently friendly manner, and on one occasion ate at the same table with him.

**SEWING MACHINES AND DOGS.**—In a recent California case a wealthy owner of dogs was sued for \$10,000 damages by a seamstress who had been injured by the bite of one of the defendant's pets. The bite was on the leg, and the seamstress claimed that she was incapacitated from using her sewing-machine. The jury gave her \$4,500 and put the costs also on the defendant. These costs amount to about \$1,500, as the trial lasted a whole week and a small army of expert witnesses was examined.

## Reviews and Bibliography.

**Annual of the Universal Medical Sciences: A Yearly Report of the Progress of the General Sanitary Sciences throughout the World.** Edited by CHARLES E. SAJOUS, M.D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators, and correspondents. Illustrated with chromo-lithographs, engravings, and maps.

Surely we have fallen upon days of giant combinations as well as trusts. But whatever ill feeling may have grown up against combines and monopolies in general, such a one as results in the Annual of the Universal Medical Sciences can hardly meet with aught but favor. True, it makes the old-fashioned individual effort formerly put forth in journalistic work seem paltry to contemptibleness, and produces in the breast of the ambitious student an appalling sense of hopelessness when he thus gains a glimpse of the vast fields of knowledge of which he can never gain any thing more than a glimpse; but it gives us an insight into the world's workings, and access to the current contributions to medical art and science that no measure of individual effort could ever accomplish.

If the work of the enterprising undertakers is a grand and bold one, the task of the collaborators has been thoroughly performed. Only once in a while have some of the editors failed to be sufficiently impersonal, and have allowed individual interest in that particular subject and its controversies to cause them to magnify some parts out of proportion. The faults that can be pointed out are beyond the province of those who have part or control in the collection of these synopses of medical science.

It is probable that we have here the cullings of not less than a million pages of medical writings, all produced in a single year. Vastly less than a fourth of a million pages can contain all that has been known in all time of what is useful in medicine. How much waste and how much repetition! In these volumes the million pages have been simmered down to about twenty-five hundred pages; and how much of that is to stand?

In the definitely scientific parts, as chemistry, physiology, etc., there is no reason for un-

doing what has been done, for the reason that there is no motive for the workers in these fields to be misled, and there is too little pleasure in their pursuit for incompetent workers to devote much time to them. But how different in the practice! Here every third man, at least, is willing to work a salted mine. What is wonderful this year, as last, is the almost invariable "good results" with nearly every form of treatment. One would have been pleased to know that at least one other doctor in the world gives medicines sometimes, like himself, to no purpose; but if he learns these facts he must look elsewhere than in journal literature, for here the first reports, at least, are almost invariably successes.

The first subject turned to was consumption, the treatment of which by the method of Koch has the whole world just now on the tiptoe of expectation. And we could but wonder what was the use of looking any further for a cure. From these pages an absolute cure, or, at all events, an absolute immunity against death from consumption can be deduced on the most cursory reading. It is all in the word "travel." Let the patient go to Dr. Jones and be put on guaiacol, and remain till Dr. Jones gets ready to publish his first report, for up to that time there is nothing but marked improvement. Then let him go to Dr. Smith and go through a course of creasote until Smith gets his first report written, and then betake himself to Dr. Brown and try insufflations of calomel till Brown gets ready for publication. In this way, simply by traveling from one experimenter to another, but never staying too long, and being always benefited, he will eventually surpass the standard of perfect health, or die of old age while still improving.

If, however, he should find himself about to run against some one afflicted with common sense or common honesty, like Dujardin-Beaumez, who declares we are forced to fall back on overalimentation and hygiene, or a Hunter McKenzie, who declares that the problem of affecting the germ of tubercle by either general or local agents has not yet been solved, he will do well to draw his cloak closer around him and hurry on to Dr. Johnson.

Truly we need more eccliness and a large ex-

ercise of self-restraint, more fairness and logical training, a wider knowledge of the true relation of things than most of us are blessed with. And nothing is likely to contribute more to that most desirable consummation than the gathering of all the discordant views of physicians in every land, and placing them side by side, as is done in this Annual of the Universal Medical Sciences.

D. T. S.

**Text-Book of Hygiene:** A Comprehensive Treatise on the Principles and Practice of Preventive Medicine, from an American Standpoint. By GEORGE H. ROBE, M. D. Second edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. 421 pp. Price \$2.50. Philadelphia and London: F. A. Davis Publishers. 1890.

The avowed aim of the author in writing this book has been to place in the hands of the American student, practitioner, and sanitary officer, a trustworthy guide to the principles and practice of preventive medicine.

The work is essentially practical, embracing the themes that are likely to come up in every-day experience, and such as are likely to be discussed in sanitary conventions and in journals of hygiene. The more unusual experiences and statistical matters receive less attention than is given them in the more elaborate text-books.

The book is a live one, dealing with live issues. In the matter of beverages Dr. Robe takes a decided position against the use of alcohol, fortifying his position with statistics drawn from life insurance tables, showing that the expectation of life is markedly greater in the non-users than in the users of alcoholic beverages. The deductions drawn from these tables may be correct, as doubtless the tables themselves are, but they are certainly liable to fallacies. Among those reported as users there may be many who indulge to excess, and these no doubt shorten their lives. What is wanted is carefully collected statistics showing the average expectancy in the same climate and same circumstances in other respects of moderate users and non-users of alcoholic beverages.

The figures Dr. Robe gives for syphilis in the United States are simply startling, indorsing as



he does the statement of Dr. Gibson, that the number of syphilitics in the United States at any one time amounts to two millions. As the disease may be said to last an average of six years, this would give one hundred million in a generation, or one in every six of the population. The means he suggests for its suppression are all commendable, but the best of them, isolation and inspection, are impracticable in the present condition of public sentiment. Any number of people, and often the public press, will meet with holy horror any suggestion of licensing and inspecting houses of prostitution, while they will sit silently by and see these houses hunted up by the lowest order of detective pimps and regularly blackmailed for the benefit of those in power. In almost every large city in this country this blackmailing is carried on and offers the most effectual mode of license. For once the blackmail is paid they are taken under the protection of these authorities, and no efforts of the citizens are available to remove them from any locality they may chose to settle.

The chapter on the germ theory of disease has just now a particular interest, especially that part relating to protective inoculation. It is to be remembered that vaccination in smallpox does not parallel inoculation, for, once established, smallpox is not modified by vaccination, and is certainly not cured by it. The result of Pasteur's discoveries has not been to give permanent immunity against the diseases, such as chicken cholera, hydrophobia, etc., against which inoculation is done. Strangely enough the countries where these inoculations are done, either for protection or cure, have usually the greatest number of deaths from the diseases in question.

The subject of yellow fever receives the attention it deserves. Altogether this work of Dr. Rohe supplies a most attractive and instructive as well as authoritative work on hygiene.

D. T. S.

DEATHS OF EMINENT MEN.—Dr. George Gulliver, and Dr. Thomas Graham Balfour, eminent English physicians, and Dr. Giannibattista Borelli, a leading Italian surgeon, died in January.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Dr. Koch's famous remedy has attracted such crowds of invalids to Berlin that the sanitary authorities fear lest the presence of so many consumptive sufferers should injure the public health. Accordingly government experts will examine all the passenger carriages on the railways to Berlin to decide whether there is any danger of the travelers spreading infection. Speaking of Dr. Koch, another remedy for consumption is brought forward by two Nantes doctors: the transfusion of goat's blood into the sufferers from tubercular affections. The French physicians say that goats never suffer from consumption, and that their remedy has been very successful so far. A Polish doctor also points out in a Cracow paper that bacilli were mentioned nearly two thousand years ago. In the year 37 B. C., Terentius Varro, in his "*Rerum Rusticarum*," alludes to the bacilli theory, saying that "in marshy lands infinitely small creatures, invisible to the naked eye, are produced, which live in the surrounding air, and through the nose and mouth find their way into the human organism, causing serious distempers."

Dr. B. W. Richardson thinks that a love of nature is not unlikely to turn a doctor into a poet. In support of this view he delivered recently a lecture on "Our Medical Poets." From time immemorial, said Dr. Richardson, there had been poets among the physicians. There was a tradition indeed that Apollo was the god of physic. At the same time he did not claim that medicine had produced any sublime poets, such as Dante and Milton, but there were many physicians in England and Scotland who ranked as poets in various degrees of expression and thought. First, there was Sir Thomas Brown of "*Religio Medici*" fame, who wrote "*The Evening Hymn*," which Dr. Richardson considers extremely beautiful in its way. It was of Sir Richard Blackmore, who wrote his poems in a carriage while engaged on his professional round, that Dryden said his poetry resembled the lumbering wheels of his

chariot. His "Creation," however, highly prized by Addison, was mercilessly ridiculed by Swift. Contemporary with Blackmore was Sir Samuel Garth, author of "The Dispensary," of whom Lady Mary Wortley Montagu spoke as "a worthy man." Dr. John Armstrong was known for his poem on "Health," which made him the first of the great army of sanitary reformers. Then came the learned Mark Akenside, who wrote "The Pleasures of Imagination," and edited the works of William Harvey. Dr. Richardson then referred to Tobias George Smollett, who produced history, poetry, and fiction, each of the best kind in its way. Oliver Goldsmith was all his life long an observer of nature, a poet, a writer of the purest fiction, and a man imbued with science. Next, they had Erasmus Darwin, grandfather of the famous naturalist. He was a man of very great character, and unquestionably the first who started the idea which was subsequently carried out by his distinguished grandson in "The Origin of Species." Nathaniel Cotton was a domestic poet. He once had under his care Cowper, who, in one of his strange moods, fancied himself a teapot. John Keats was a medical student who never qualified. Dr. Richardson recited "The Draught of Sunshine" as an example of what he called a rollicking temperance song. Of David M. Moir, Carlyle said: "He is a fine, melodious creature." "The Deserted Churchyard" was considered his best imaginative piece. There were two more writers, added the doctor, who were not strictly medical poets, as they afterward became clergymen. They were Dr. Wolcott (Peter Pindar) and George Crabbe. If time had permitted, Dr. Richardson would have referred to more modern medical poets, among whom Dr. Oliver Wendell Holmes is so distinguished an example.

Sir Spencer Wells recently presided at a drawing room meeting held under the auspices of the National Health Society, with the view of establishing in Hampstead a class of the hygienic education of women. Dr. A. T. Schofield, one of the lecturers of the National Health Society, delivered an address showing the importance of a knowledge of the laws of health, and Sir Spencer Wells in addressing the meet-

ing bore testimony to the valuable work being done by the society and said that the increase of the average length of life now was greatly due to the instruction being carried on in physiological subjects.

Sir James Crichton Browne, who has just lectured on the subject of "Brain Rust," was elected a Fellow of the Royal Society a few years ago on the nomination of his illustrious friend, Chas. Darwin, in recognition of his researches in the physiology and pathology of the brain. His studies of mental disease appear to have begun at an unusually early period. His childhood was spent in the Crichton Institution, Dumfries, of which his father, the late Dr. Browne, afterward the first commissioner in lunacy in Scotland, was medical superintendent. A curious tale is going the rounds of the late Dr. McVicar, of Moffat, visiting the Crichton Institution, taking with him Sir Jas. Crichton Browne, then a child four years old. As they entered the refractory ward a man of colossal stature, in a paroxysm of furious mania, came rushing from the far end toward them, Dr. McVicar involuntarily stepped back toward the door, while the keepers formed a cordon round him. But to his horror, the next moment, it was observed that the boy had let go his hand and slipped between the attendants, and was advancing toward the maniac. A terrible tragedy seemed imminent, but when the child, unconscious of danger, held out his hand, the madman stopped abruptly, gazed at him intently for a moment, then knelt down, took him in his arms and fondled him with all a woman's tenderness. It has not been given to every eminent practitioner to commence his acquaintance with the characteristics of insanity either at so tender an age or under conditions so exciting.

Sir George Murray Humphrey, one of the new year's knights, has a long and honorable record as a medical teacher. It is nearly half a century since he went, a very young man, from St. Bartholomew's Hospital to teach anatomy in Cambridge. His life work has been to build up, in conjunction with Sir George Paget, the medical school of Cambridge. For nearly a generation it was an uphill fight, but it has been won, and Cambridge is now the principal medical



school in England outside London. Sir George Humphry is a spare man, whose hair, in spite of his great age, is still black, and whose step has hardly lost any of the elasticity of youth. Himself a wonderful example of vigor at an advanced age, he has written much on old age and old people. In particular he has compiled a long list of genuine centenarians, and has studied their habits much after the fashion in which a naturalist studies the habits of some strange animal. One old man, for instance, declared that he had always "drunk as much as I could get, and always will do," and another old fellow "drank like a fish during his whole life." Humphry recorded these facts gravely and also pointed out that one quarter of his list of centenarians were total abstainers, and another two thirds took little alcohol.

Some years ago ethyl bromidum was somewhat extensively used in England as an anesthetic for dental practice, as it acted quickly and rarely produced sickness; but the number of fatalities attending its use led to its being abandoned, and it is but little if at all employed by English dental surgeons. From Berlin three cases of poisoning have been reported, and it appears that the drug in question is much used in that city as an anesthetic for small surgical operations.

The death which is in the pot appears to be less imminent than that which is in the glass when beer is the liquid the latter holds. "Gold-lined silver mugs" are, on the score of health, preferable to glass, of which lead is a component part. No British tavern-keeper will hesitate for a moment to act on this opinion of the great German, Dr. Schultze, and allow a customer to convey "'arf a pint to a gent in a 'ansom houtside" in a real silver gilt cup.

January 20, 1891.

A DEATH under ether anesthesia occurred in the St. Barnabas Hospital, Minneapolis, December 25, 1890. The patient was a well-built young man with a tumor of the foot.

DR. WELLINGTON V. WALKER, formerly on the staff of the City Hospital of Louisville, Ky., died suddenly at Mexico, Mo., in December.

## Translations.

UNDER THE CHARGE OF I. N. BLOOM, A. B., M. D.,  
Dermatologist, Louisville City Hospital, etc.

ON THE EMPLOYMENT PER RECTUM OF IODIDE AND BROMIDE PREPARATIONS FOR LOCAL AND GENERAL DISEASES.—(Prof. Heinrich Koebner, *Schmidt's Jahrbuecher*, 1890, No. 2.) Koebner recommends, as a result of his experience, iodine and bromide clysters and suppositories, the use of which seem to have been forgotten or misapplied. As a local agent their effect is excellent in prostatic inflammation; the best are the clysters:

Potass. iodid.....	3.0
Potass. bromid .....	2.5-3.0
Aq. destillat.....	200.0

M. Divide in ten parts, adding one part to 50 0-100.0 grams of warm water and inject, at first once, then twice, daily into the rectum.

If there is great sensitiveness 0.03 ( $\frac{1}{2}$  grain) extract belladonna should be added to the original mixture. An hour before the administration a clyster should be given to empty the rectum. If the desired result is not obtained, the solution can be made stronger, or, what is especially efficacious, from 3 to 10 drops of tincture of iodine can be added to each clyster.

Iodide clysters are useful in general diseases (as in syphilis) in which the administration per os is not tolerated. Prof. Koebner has noticed that in such cases 0.5 to 1.0 in water or milk injected into the rectum produces excellent results and causes no unpleasant symptoms for a long time. This method of administration is especially valuable in cases where patients can swallow with difficulty or not at all. It would appear as if iodides and bromides are much better absorbed by the rectum than by the stomach, and the effect is quicker and more energetic. Prof. Rabow and Dr. Lazarus confirm this experience in syphilitics, asthmatics, and lunatics.

OLIVE OIL IN THE TREATMENT OF GALL-STONES. — (Dr. Siegfried Rosenthal, *idem*.) Rosenthal obtained unusually favorable results in three cases of gall-stone with the use of olive oil, first recommended by homeopathic American physicians. He thinks he can recommend its use in all cases, whether icterus accompanies the disease or is absent. He advises a mix-

ture of 150.0 to 200.0 (5 to 7 ounces) be made, of which  $\frac{1}{4}$  per cent is menthol and 10 to 15 per cent cognac. The yolks of two eggs should be added and the whole mixture divided into 4 to 8 parts. These should be taken in from one to four hours, or at longer intervals. After administration the mouth should be rinsed with vinegar and the patient should drink hot coffee.

If the patient should vomit, wait a few days and begin with smaller doses less frequently given. For a day or so the patients lose appetite, and for a time feel weak; there are no other unfavorable symptoms. When the acute symptoms are gone and the concretions have been passed, the patient should partake largely of bacon, sardines, and similar articles of food, to prevent renewed inspissation of bile, or else he should take alkalies and alkaline mineral waters for the catarrh of the gall-passages.

Rosenthal thinks that olive oil acts very energetically in increasing the elimination of bile, and in this way its good effect is obtained. He thinks he has proved this in his experiments on dogs with fistula of the gall-bladder. When the oil is given, large amounts of thin bile are passed off and the biliary concretions washed away. The effect of the oil is heightened by the injection of cold water high up the rectum.

Rosenthal does not think much of other usual therapeutic measures in these cases, especially Durandes' mixture, which he thinks more often does harm than good.

By far the best (and Stiller agrees with him) is the salicylate of soda. It undoubtedly increases the flow of bile, and is often of great use when about 3.0 (45 grains) are taken daily in large quantities of hot water.

RESEARCHES INTO TETANUS POISON.—(Tizzoni and Cattani, *Schmiedeberg's Archiv.*, 27 Bd. 6 H.) In order to obtain as large an amount of material as possible, glass balloons were filled with gelatine or beef broth with sugar, and inoculated with tetanus cultures. The air was replaced with hydrogen. After eight to ten days the cultures were passed through a Chamberland filter and the filtered gelatine cultures found to be virulent to a high degree, while the beef broth cultures were almost harmless. The toxic power of the gelatine-filtered cultures

is truly frightful. In some cases one tenth of a drop is sufficient to produce all the symptoms of lockjaw with a fatal termination. The result is the same, whether it be given subcutaneously by intra-venous injection or into the nerve. The poison is inactive when administered by the stomach; the *post-mortem* appearances are always negative. The toxic effect is diminished by the prolonged action of strong mineral acids as well as by a heat of 60° C. (140° F.) continued for fifteen minutes. Five minutes of a temperature of 60° C. increases the potentiality; a longer contact or a shorter with a higher degree of heat stops it entirely.

In the filtered cultures a ferment was found which dissolves gelatine, fibrin, and to a slight degree albumen. By precipitation with absolute alcohol the toxalbumen is rendered inactive. On the other hand, by precipitation with sulphate of ammonia, water, and dialysis, from 40 cubic centimeters (1 $\frac{1}{4}$  ounces) of the culture, 1,033 grams (2 $\frac{1}{2}$  pounds) of an amorphous golden yellow substance was obtained which was slightly soluble in water, and possessed the same toxic potentiality as the filtered culture.

This is clearly different from the tetanotoxalbumen of Brieger and Fraenkel, for (1) B. and F. obtained theirs from beef bouillon cultures, whereas the authors of this article derived theirs exclusively from gelatine cultures. (2) The tetanotoxalbumen of B. and F. was precipitated unchanged by absolute alcohol. This is rendered inert by it. (3) In the case of the former the toxic effect occurred after three to four days; in the latter in eight to ten hours.

All attempts to obtain immunity by inoculation with weakened cultures have been, up to the present time, failures. All the animals died of tetanus. The principal difficulty seems to be the determination of the effect of minimal doses of a substance so powerful.

RESULT OF TREATMENT OF HYDROCELE IN THE SURGICAL CLINIC AT HEIDELBERG FROM 1878-1888.—(Dr. E. Voswinkel, *Beitr. zur klin. Chir.*, v. 2, p. 489.) The material from which these deductions are made consisted in 90 patients. Of these, 2 were treated by simple tapping, 48 by tapping with injection of iodine, 3 by tapping and injection of catholic



or sublimate solutions, 25 by the radical operation after Volkmann, 5 by variously modified radical operations, 3 by radical operation and extirpation of the tunica vaginalis, and 4 by castration.

After careful examination into all cases Voswinkel comes to the conclusion that the radical operation, of whatever kind, is much better than tapping followed by injection.

The only disadvantage connected with a radical operation is the longer time necessary for cure, and the consequent incapacitation of the patient from his occupation.

In conclusion, Voswinkel insists that the operation should never be undertaken unless a certain aseptic result from beginning to end can be guaranteed.

**DEMONSTRATION OF TUBERCLE BACILLI.**—(Dr. Bliesener, *Deutsche Med. Zeit.*, June, 1890.) The following is recommended as an easy and certain method of demonstrating tubercle bacilli. After the cover glass is prepared in the usual manner and passed three times in a second through the gas or alcohol flame, it is placed upon a piece of tin five centimeters (two inches) square with the prepared side up. With a pipette five or six drops of a Ziehl-Neelsen carbol. fuchsin solution—

Fuchsin.....	1.0
Alcohol absol.....	10.0
Acidi carbol.....	5.0
Aq. dest.....	95.0
(Not to be filtered.)	

are dropped upon it and the tin under the cover glass warmed over the flame until the first bubbles appear in the carbol. fuchsin solution. The flame is removed and a pause of a minute ensues. Avoid allowing the solution to dry on the cover glass, and, if necessary, add a drop or two to it. The cover glass is washed and placed in a watch crystal which contains ten to twenty drops of the following solution:

Methyl blue.....	1.5
Aq. dest.....	100.0
Acidi sulphur.....	25.0

The prepared side floats on this for fifty seconds, and is again washed in water and placed upon the slide. The tubercle bacilli appear stained a deep red, while the other parts are pale blue. Both solutions will keep for months.

## Abstracts and Selections.

**PROF. VIRCHOW ON KOCH'S REMEDY.**—The important statements made by Prof. Virchow at the meeting of the Berlin Medical Society on the 7th ult. mark a distinct period in the history of the employment of the anti-tuberculous fluid discovered by Prof. Koch. Hitherto investigations have been mainly clinical, and the few cases in which the results of *post-mortem* examination have been published have not permitted of any definite deduction as to the action of the remedy upon internal organs. Prof. Virchow now brings forward his experience based upon an examination in the Pathological Institute of twenty-one cases which have proved fatal during or after the treatment. Coming from so high an authority, his statements will have the greatest weight, and they must be carefully analyzed, in order, if possible, to determine whether the treatment of internal tuberculosis by this method is strictly chargeable with increasing the liability to a fatal termination; and, if so, what are the circumstances which should favor or interfere with so disastrous an issue. It is imperative that the question should be fairly faced and impartially handled; otherwise there may be witnessed as great a revulsion against the use of the "remedy" as there has been of indiscriminate enthusiasm at its first adoption.

In the first place, it must be pointed out that Prof. Virchow's results confirm in a striking manner the accuracy of the original statement of Prof. Koch. With certain exceptions as regards miliary tubercle and "solitary" tubercle of the brain, to which he afterward referred, Prof. Virchow admitted that the "remedy" acts in a remarkably selective way upon tuberculous tissue, leading to its rapid necrosis, preceded and accompanied by inflammatory hyperemia and exudation. That which is so strikingly shown in the local reaction produced by the injections in cases of lupus and articular tubercle does undoubtedly occur in the deeper parts of the body. Some of these changes have been so marked as to astonish even one of the wide pathological experience of Prof. Virchow. Naturally but little opportunity is afforded of observing the hyperemic swelling after death, owing partly to the time that has generally elapsed between the discontinuance of the injections and death, and partly to the transient character of the phenomenon. We mostly judge *post-mortem* of hyperemia by its effects, but occasionally the vascular engorgement and distension are so marked as to leave no doubt of its presence. Prof. Virchow was struck by the extremely congested state of the cerebral

membranes and brain substance in the fatal case of tubercular meningitis that had been treated by the injections; and he has noted also undue vascularity and even hemorrhagic infiltration in the walls of phthisical cavities, or actual hemorrhage in the cavity itself. Less equivocal evidence of the specific power of the fluid may, however, be found in the very marked indications of inflammatory action around ulcerated areas and in the contiguous lymphatic glands. The degree of inflammatory "reaction" is sometimes such as to merit the term "phlegmonous," and it is associated with distinct leucocytosis. These anatomical descriptions tally precisely with the conditions observed in skin and mucous membranes during life, and the liability to grave laryngeal complication from the use of the remedy in tubercular disease of that organ was early pointed out.

The greatest interest attaches to Prof. Virchow's statements concerning the condition of the lungs in cases of phthisis treated by the injections. This is a matter which from the first has riveted attention, and fears were early expressed on all sides lest in dealing with so complex a structure as the lung the reactive changes might lead to grave symptoms or possibly to extension of the disease. It is notorious that our methods of physical diagnosis, however carefully applied, are not of such exactitude or nicety as to inform us of the precise changes that are going on in the lungs; and, indeed, that they are sometimes liable to lead to erroneous conclusions concerning the actual comparative extent of excavation and consolidation. Surprise is excited in reading the records of some of the cases of phthisis treated by Koch's method, at the scanty amount of evidence of a local reaction in the affected lung as contrasted with that observed in other regions. But there have not been wanting cases in which not only has no good resulted from the treatment, but in which physical examination has pointed to a distinct advance of the disease. Prof. Virchow's careful study of the lesions met with *post-mortem* throws much light upon such cases. He finds a remarkable tendency to an undue extension of caseous and of catarrhal pneumonia. One case exhibited most extensive tracts of "caseous hepatization" in the lower lobes, although when the treatment commenced there were only signs of limited infiltration at one apex, and several other cases showed similar changes to a less marked extent. The type of "catarrhal" pneumonia, which also extensively prevailed in some cases, was notable for the fluidity of the alveolar contents, differing in this respect from what is usually observed in phthisis, and for being more widely

diffused throughout the lung. Ordinary croupous pneumonia did not occur, at least in a simple form. These pneumonic changes are indeed part of the natural history of phthisis, and it might be contended that the injections had nothing to do with their production, such peculiarities as were noted by Prof. Virchow being not so specifically distinct as to base thereon an affirmation of any relationship to the treatment. Nevertheless, there is nothing improbable in the views entertained by that eminent pathologist. The "remedy," which acts by causing disintegration of tuberculous tissue, may conceivably set free so much material which can not be got rid of in the ordinary way; and the infection of the lower lobes, although paralleled in many cases of phthisis apart from any use of the "remedy," is, under these circumstances, most likely (indeed we might say "most certain") to supervene. It will be difficult to explain away these facts, which emphasize the necessity for careful selection of cases submitted to treatment.

There remains, however, another and even graver danger in the use of the remedy, the possibility of which has been suggested since the time of Prof. Koch's declaration that the bacilli themselves are unaffected by the action of the remedy. We mean the risk of disturbing a localized tubercular focus, and setting free the virus to disseminate tubercle in other parts. There is no mistaking Prof. Virchow's opinion on this head. He adduces evidence of quite recent miliary tuberculois in serous membranes and elsewhere in cases treated by the injections to show that such dissemination may have arisen from the disturbance of old foci. He seems to consider that the appearance of fresh tubercles on the larynx or other mucous surface is not due, as suggested, to the diagnostic powers of the remedy, but to its having initiated fresh infection. Some of the examples he cites of recent tubercles in the serous surface opposite to intestinal ulcers are less convincing than others, since they are among the ordinary concomitants of the local process; but pericardial tubercle is rare enough, and its existence in two cases is a curious coincidence, if nothing more. The risks of intestinal perforation from rapid necrotic action in tubercular ulcers must also be borne in mind.

It is, of course, possible to assert that the important facts adduced by Prof. Virchow have no relation to the injections of Koch's remedy, since they are in harmony with the known progress of the disease. But when we remember that this fluid has been shown to have such powerful disintegrating action upon tuberculous tissues in other parts of the body, and also that such action in the lungs



would explain the appearances detailed by Prof. Virchow, it seems almost idle to dismiss the notion that the lesions are consequent on the remedy. Does it therefore follow that the remedy is useless, and should forthwith be discarded? Surely not, for it confirms its power for good as well as for evil, while it emphasizes the need for the greatest circumspection in its use, in selection of individual cases based not only upon the stage of the disease, but also on the general strength of the patient. It suggests too the inadvisability of using it in chronic and quiescent cases on the one hand, and in the actively progressive on the other. Altogether it tends to limit very much its applicability to pulmonary phthisis. But we are not prepared to say, from the evidence so far offered, that it will have to pass into the limbo of other less worthy "cures of consumption."

Since the above was written we learn that Prof. Virchow continued his statement at the meeting of the society on the 14th, and that in the debate which followed Drs. A. Fraenkel and Baginsky related cases in which the disease extended while under the treatment, thus confirming Prof. Virchow's statement. However, Dr. Gutman was able to adduce other instances in which the improvement was so marked as to leave no doubt of the efficacy of the remedy in some cases. Prof. Virchow, in closing the discussion, remarked that he did not question its powers, but only desired to warn against its indiscriminate employment. We note too with satisfaction that the "secret" of the nature of the remedy has at length been divulged. Thus, then, we may look forward with increased hope for the future of the remedy, in ampler knowledge of its nature, and of its effects on the human body; and believe that, although its scope may be more limited than has been imagined, it will be of the greatest service in the treatment of tubercular diseases, when applied under suitable conditions in carefully selected cases.—*London Lancet*.

**THE RELATION OF LUPUS TO TUBERCULOSIS.** Few diseases of the skin have excited so much interest and attention as lupus vulgaris and the affections cognate to it either in name or nature. At the present moment this interest has been intensified, because the influence of Koch's fluid upon tissues affected with tubercle bacilli was in this disease exhibited most remarkably, and the phenomena could be most easily observed. The effect of Koch's fluid upon it has been regarded as a conclusive proof, from the clinical side, of the bacillary origin of lupus vulgaris, which Koch himself had already demonstrated on the microscopical side, though the bacilli were so few and far between as to leave

many observers of large experience still unconvinced. It is not, therefore, to be wondered that Mr. Hutchinson should have taken this subject for a series of post graduate lectures, and should tread again the path which his footsteps have so often traversed, each time trying to do something to smooth the way for other travelers; and it is not without interest for us to learn what effect the new light on the subject has upon the mind of so able and experienced an observer.

The lecture before us shows that Mr. Hutchinson still considers common lupus "as a variety of inflammation induced by any one of many local causes of irritation and inflammation;" the peculiarity of the inflammation being due to the special proclivities of the individual, the parasite being at most a secondary phenomenon; but it is not easy to gather to what extent he ascribes a modifying influence to the presence of the bacilli. That this influence is not a very strong one in his view may be inferred from this observation: "If, indeed, it were asked whether the clinical evidence more favored the belief of the alliance of lupus with tuberculosis or with cancer, I am inclined to think that the reply would have to express hesitation." A little further on he says that parts affected by lupus not infrequently take on cancerous growths, and he quotes Dr. Bayha, of Tübingen, who had met with four cases of such a combination in his own practice, and then says: "I doubt much if many observers could collect from their own observations as many as four cases of lupus in which the patients had subsequently succumbed to any form of internal tuberculosis." These are strong statements to make, and coming from so careful an observer can not fail to attract much attention. It is to be hoped, therefore, that in one of the lectures which are to follow he will give us his own experience as to the number of cases in which he has observed cancer associated with lupus. The number of cases on record is certainly not very great, and there is a remarkable paucity of cases in English literature, most of them having been reported from France or Germany.

With regard to the association of lupus and phthisis, Besnier observed it eight times in thirty-eight cases of lupus, that is, over twenty per cent. No doubt further observations are desirable on this point, but we must look for them among physicians who see much of phthisis, rather than from dermatologists, as when phthisis has set in the lupus becomes a matter of secondary importance. Even as regards the family history, Mr. Hutchinson tells us that statistical proofs fall far short of our general impressions as to the frequency of the

connection, but that it is otherwise as regards lupus erythematosus; but on this head he promises us further information. Statistics which are to upset so completely the general opinion held on this subject, will be awaited with interest. It is clear, therefore, that Mr. Hutchinson's views are not yet materially altered by any facts furnished by the effect of Koch's injection, though he admits that further knowledge of it may compel such an alteration. He concludes his lecture by saying that, seeing that a considerable group of maladies are inseparably "associated together in the lupus family, it is probable that one and all should be regarded as forms of chronic infective inflammation deriving their peculiarities from the peculiarities of the individual attacked and not from specific elements of contagion."

Whether we agree with Mr. Hutchinson or not, it is instructive to note that there are still two sides to the question, and although the influence of Koch's fluid lends a strong support to the bacillary theory, our experience of it is at present far too limited to found any pathologically strong argument upon it. Already we hear of other diseases, such as leprosy, showing decided reactions after injections, and Koch himself is of opinion that it is not so much a bacillus destroyer as a destroyer of a certain ill-formed tissues in which the bacillus resides, and if other similar tissues, due to the action of other bacilli, break down after injections of the fluid, its diagnostic value is *pro tanto* diminished, and we shall still have to discuss the origin and nature of lupus on the other and older grounds. Many of the moot points might be cleared up by collective investigation. If, for example, each of the members of the Dermatological Society would carefully inquire into the family history and note the complications of every case of lupus vulgaris and erythematosus which came before them, and contribute them to either the secretaries or any one appointed by the Society, a sufficient number of cases to afford really reliable data would soon be collected. Common as lupus is supposed to be, its frequency is overrated on account of the chronicity of the disease and the way in which patients wander from one hospital to another. Some means, therefore, to prevent the record of a case several times over would have to be adopted. Again, the registrars of consumption hospitals might be applied to to furnish the cases of phthisis and lupus which have occurred during, say, ten years; and, conversely, they might well inquire whether in any of the relatives of phthisical patients cases of lupus or other form of local disease of supposed tubercular origin existed. Investigation on these and similar lines

would settle this much vexed question in a way that would be found impossible by any individual observer.—*Ibid.*

**TONIC HYSTERIA.**—Gentlemen, the case I am going to show you to-day belongs to a curious group of nervous diseases which have been described as tonic hysteria. So far as I am aware, it has never been recognized in this country, and the only reference of the sort in any English journal is a brief account of a case of hemianesthesia ascribed to lead poisoning, included by Dr. Allen Sturge in a paper published in the British Medical Journal for 1878, vol. i, p. 784. This case was seen by him in Paris under the care of Dr. Lepine, and it is entirely to French authorities that we owe the recognition of the curious relations that appear to exist between chronic intoxications—for example, by lead, alcohol, etc., and certain hysterical phenomena. These have been almost exclusively observed in male patients, and under circumstances where, as in the case I am about to relate, an error of diagnosis might easily be made by any one unacquainted with these relations, or at least great difficulty might be experienced in forming a conclusion as to their true nature. I am therefore glad of this opportunity, as one that may not soon recur, and I trust you will store this case in your memories as a remarkable illustration of that protean disease, hysteria, which lurks under so many strange shapes, to the confusion of our art and not seldom to its discredit.

John W. T., aged thirty-seven years, store-keeper, was admitted January 2, 1890, complaining of stiffness, weakness, and numbness of the left leg, arm, and hand, and also of some numbness and stiffness of the right hand.

**Family history.** His father died, aged forty-two, his mother, aged twenty-five; causes of death unknown. One brother living, aged forty-two, in good health; one sister died, aged thirty-two, of dropsy and jaundice.

**Previous history.** The patient remembers no illness, except a feverish cold with which he was confined to the house for a fortnight when he was seventeen, until twelve years and a half ago, when he had quinsy, followed by what he calls "lockjaw," for which he was treated in the Queen's Hospital. This got well, but about the same time a numbness or tingling sensation came on in the feet, legs, and thighs, which gradually disappeared. His present illness began two years and a half ago with severe headaches, which were always worse on Sunday morning. On Saturday nights he worked until 11 o'clock, but on all other evenings he left work at 6 o'clock. After six months the headaches left him, but



he began to feel a tingling in the left forefinger, which in the course of three months spread to all the fingers of the left hand, and by the fifth month had spread to the wrist. At the end of a year the left arm was affected by numbness, tingling, coldness, and loss of muscular power. The left foot and leg were then attacked by similar symptoms, which gradually reached as far as the knee. Six months ago the right hand began to be similarly affected, but in a much slighter degree. For the last two years his bowels had been very constipated, being opened about once a week, and then only by means of medicine. His work had been to serve out stores, and among these he had to give out white lead, which was kept in a barrel, from which he dug it out with a spade, causing a good deal of dust. He also had to give out turpentine, and to this he himself attributes his illness. He was constantly exposed to changes of temperature. He was a very moderate drinker, and denies ever having had syphilis.

*Present condition.* The patient is a fairly well developed, sparely nourished man, with an anxious expression of face. His left arm is firmly fixed at the elbow, wrist, and fingers, the thumb being adducted and fixed under the fingers. Teeth carious, no blue line on gums; tongue clean; appetite good; bowels confined; liver and spleen normal; heart normal; lungs normal; pulse 72, regular; respiration 18. He complains of frequency of micturition and that he can not hold his urine so well as he did; quantity normal; contains no albumen, sugar, or bile, but there is  $\frac{1}{133}$  gr. of lead to the pint. Generative functions normal.

*Nervous system.* Special senses normal. No diminution of field of vision or color-blindness in either eye. Plantar reflex diminished on the left side. Ankle clonus present on both sides, but more marked on the left. Patellar reflex exaggerated on the left side. Complete analgesia without anesthesia over the left forearm and hand; elsewhere sensation unaffected; electrical reactions of muscles of forearm and leg are quite normal. Both the left arm and left leg are weakened. In bed he keeps his leg stiffly extended at the knee and flexed at the ankle to a right angle, and in walking he maintains the leg in this position, although when asked he can flex the knee, draw up the thigh, and extend the ankle. If one attempts to flex the knee it is easy to feel that the resistance increases with the force used. There is very slight wasting of the muscles of the forearm and leg. Girth of forearms, right  $9\frac{3}{4}$  inches, left  $9\frac{1}{2}$  inches; girth of calves, right 13 inches, left  $12\frac{3}{4}$  inches.

On January 25th he was put under chloro-

form, when the spasm of the left arm became quite relaxed. The limb was put on a splint, and when consciousness returned the spasm did not recur. He says his leg is "always worse in the morning (visit hour) and when any body is looking at him." When asked to execute particular movements of his leg or arm, the limb is often thrown into violent clonic spasms, which may extend to the whole of the same side and are attended by obvious nervous excitement.

March 2d. His hand and arm are still cyanosed, but the spasm has entirely gone. He still walks badly, holding the limb in the same rigid position. The analgesia seems to be almost if not entirely absent.

This is a case of hysterical spastic hemiplegia. It may be distinguished from the spastic paralysis of organic disease by the following circumstances: (1) Primary spastic hemiplegia is unknown as a disease of adult life; there is no history here of an apoplectic seizure, but of a slowly progressing paralysis. (2) There was analgesia of the affected forearm, whereas in organic disease sensation would be unaffected. (3) The gait differs from that of organic disease in the foot, being flexed instead of being extended in the talipes equino-varus position. (4) The spasm is not constant; when standing he can point his toes and flex his knee. (5) Very slight wasting has occurred in spite of the paralysis having existed more than eighteen months. (6) The spasm relaxed completely under chloroform, and has not recurred at the wrist and elbow. (7) The continued improvement which has taken place under simple treatment.

Some years ago I met with a very similar case, which I recorded at the time in the *Birmingham Medical Review* (vol. ix, 1880, p. 247). The patient, Joseph W., aged thirty, was a house painter, who attended as an out-patient in May, 1880, complaining of pain in the chest. He had a strong blue line on his gums, and was treated for lead poisoning. Six weeks after coming under observation he came up to show his left hand, which was firmly clinched and cyanosed. He stated that three days previously, while he was at supper, both hands became spasmodically flexed so that "he could not let go his knife and fork." This passed off in about half an hour, but the following morning the left hand, as he expressed it, "went altogether." The fingers were firmly flexed on the palm, the thumb lying over the fingers. The skin of the affected hand was cyanosed, and felt colder than on the opposite side. There was slight numbness, but no anesthesia at first. On applying gold to the affected arm for twenty minutes there was complete anes-

thetia of the opposite (right) forearm and hand; while, on applying the gold to the right arm, sensation completely returned, but disappeared in the corresponding parts on the opposite (left) side. This is the hysterical phenomenon described by Charcot as "translucence." The muscles reacted well to faradism, and under treatment by this current the power of extending the fingers gradually returned, while the anesthesia disappeared; but he began to complain of pain in the course of the sciatic nerve, with jerking of his leg. Soon after this he was brought into the hospital and treated in the surgery for what was regarded as a "hysterical" fit, and a few days later he returned with his hand as firmly contracted as ever. He then complained of a choking sensation, "as if a ball was coming up in his throat" (the familiar globus hystericus). Still later in the same year he was brought into hospital in a cataleptic condition, having had a fit in the street. His hand was easily molded, placed on a splint, and fixed so as to maintain the extended position. After a few days the splint was removed, without the hand showing any tendency to resume its contracted state, and he was dismissed with a caution. He was known to have kept well until up to December in the same year, after which time he was lost sight of. There could be no doubt as to the hysterical nature of this case, but, influenced by the writings of the French school, I was at first inclined to attribute the contracture and anesthesia wholly to the lead poisoning. Later on, after he had been brought to the hospital in a hysterical fit, I learned he had been subject to such fits since he was fourteen years of age; he himself called the attacks "hysteries." Seven or eight years previously he had had an attack of tremor in the right arm. His family history was free from any evidence of neuropathic tendencies, but he was a house painter before his first fit occurred.

In the light of the second case, and for the reasons already given, I have no hesitation in classing the first case as one of hysteria, but I had considerable doubt as to the importance to be attributed to the influence of lead, in which he had been exposed, and which the analysis of his urine showed had, to an appreciable extent, entered his system. Having looked in vain for any recent reference to the subject in the books at my disposal, I wrote to Professor Delaney, who eleven years ago published two cases under the name of "Saturnine Hemiplegia," and got in return a reference to a more recent paper of his own, which I have not been able to obtain, and to a pamphlet by a Dr. Hirschmann, entitled "Intoxication et Hystérie," in which may be found a very clear ac-

count of what has been written on the relations of hysteria to chronic poisoning by lead, alcohol, and mercury. It seems to be now fully admitted by Professor Charcot and his followers that the nervous phenomena are truly hysterical, and depend upon a fundamental hysterical diathesis. The part played by the poison is now regarded as merely that of an exciting cause. In reference to this Dr. Hirschmann says: "It is even permissible to ask whether, in the absence of the poison, the hysteria would have shown itself? The question is difficult to answer, but one may suppose that had there been no poisoning it would have probably found some other exciting cause, such as a traumatism or a vivid moral impression."

Dr. Hirschmann especially points out that these hysterical paralyses can not be confounded with true toxic paralyses, as the electrical reactions, as we found in the present case, are always normal, whereas it is well known that in true toxic paralyses—for example, in lead palsy—the faradic contractility is more or less lost. Besides the symptoms described, cases have been recorded of apoplectic and epileptic seizures, transitory aphasia, hemianesthesia, oculo-motor paralyses, unilateral blindness and color blindness, mutism, and even paralysis of the extensors of the hand and wrist, simulating in its localization the ordinary drop-wrist of lead palsy, yet all of these of a hysterical nature. It is remarkable that this association of hysteria with lead has been almost exclusively observed in men, so far only one female case having been recorded.

*Prognosis.* A cure may always be looked for in all hysterical affections, but it may be a long time coming. It is of the greatest importance to be sure of your diagnosis, and then to insist upon the essentially curable nature of the disease.

*Treatment.* The treatment of these cases should be twofold. By the administration of iodide of potassium we may promote the elimination of the lead which has accumulated in the system, while, perhaps, acting through the imagination, we seek to get rid of the motor trouble. Several of the French cases have been cured by the application of a large magnet to the affected side, and in several cases the characteristic phenomenon of transference, or passage of the anesthesia to the corresponding limb on the opposite side, has been observed. Others have been cured by the douche, others again, by a weak galvanic current, especially when applied to the skin by means of a brush electrode. We have tried the dressing for our patient, and he has greatly improved under it; he is now getting glysterium daily. He has



also taken a mixture containing iodide of potassium and magnesium sulphate. We have not used isolation and massage, the value of which we have so often demonstrated in female hysterical patients, because we have no male isolation ward in which it could be carried out, but we have no doubt it would prove equally effective.—*Dr. Robt. Saundby, Ibid.*

**MYXEDEMA RELIEVED BY GRAFTING WITH THE THYROID.**—Myxedema is a curious affection in which the features become broad, flattened, and expressionless. The eyes appear too wide apart, the wings of the nose are thick, the lips large, the loose tissue below the eyes increased and folded, and heavy folds of connective tissue form under the jaws and in the neck. The tongue also undergoes enlargement and interferes with articulation, while the hands are broad and spade-like. The person affected gradually becomes less active mentally and physically, the prevailing mood being one of placid indifference and apathy.

Several varieties of myxedema have been described: Myxedema of adults (pachydermic cachexia of Charcot); operative myxedema of Reverdin (cachexia strumipriva of Kocher); and idiocy with pachydermic cachexia of Bourneville and Bricon, the sporadic cretinism of English writers. The link which unites these varieties is absence of the thyroid body, or its disappearance as the result of disease or surgical operation. Kocher found that removal of the thyroid for goitre, which is so common in Switzerland, resulted in producing a condition very similar to cretinism in the adult; and Horsley produced a similar condition by removing the thyroid in monkeys. Following these experiments, Schiff went a step further by making the first graft of a thyroid. His purpose was to prove that the thyroid has chemical and hematopoietic functions independent of its position. He showed this by transplanting to the peritoneal cavities of several dogs, some time before doing thyroidectomy on them, portions of a thyroid from another dog. The result was satisfactory: the animals survived thyroidectomy without presenting the phenomena usually provoked in animals by ablation of the thyroid. Eiselsberg confirmed Schiff's experiments, employing cats instead of dogs, and adding the important observation that the death of the animal from thyroidectomy is prevented only when the graft of another portion of thyroid succeeds.

If the grafting of a portion of thyroid prevents the results of thyroidectomy in animals, why should it not prevent or overcome myxedema in human beings? asked Horsley, in the *British Medical Journal*, February 8, 1890.

Lannelongue, as described in an editorial in the *Reporter*, April 12, 1890, undertook to accomplish this, and it has been tried also by Bircher, Kocher, and others. In *Le Mercredi Médical*, November 19, 1890, Merklen and Walther give a review of the cases in which grafting with the thyroid for myxedema has been done, and report in detail a case of their own. The patient was a woman, forty-one years old, who had had myxedema for ten years. Metrorrhagia preceded by ten years the development of myxedema, and had never ceased since the occurrence or the latter. Walther, at the request of Merklen, transplanted one of the lobes of a thyroid from a sheep into the sub-mammary region on the right side of the patient. The operation was done so that only a few seconds elapsed between the removal of the portion of thyroid from the sheep and its insertion into the patient.

The metrorrhagia from which the patient suffered ceased three days after the operation, and had not been reproduced up to the time of the report, seventy-two days subsequent to the operation. At the same time there was a remarkable improvement in the patient's myxedema; the outward evidences of the disease became less conspicuous, speech was much more distinct, and the patient could walk easily and quickly about the ward, whereas several weeks before it had required fifteen minutes for her to make the tour of the ward.

The exact future of this operation can not be predicted at present. It is perhaps a step in the right direction; and while those who may require it are unquestionably more numerous in Europe than in this country, there is no impropriety in calling attention to it here. One thing deserves mention before leaving the subject; in some of the cases in which grafting has been done, the transplanted thyroid has, after a time, atrophied, the symptoms of myxedema have reappeared, and a second grafting has been necessary. In Merklen's case, also, the transplanted thyroid, when last examined, appeared to have diminished somewhat in volume. Perhaps later experience will avoid the disappearance of the graft by indicating a better seat for it.—*Med. and Surg. Reporter.*

**THE EMPLOYMENT OF PILOCARPINE IN CERTAIN AFFECTIONS OF THE EAR, AND THE ABUSES OF THIS REMEDY.**—The favorable results obtained in a series of cases of severe eye affections, particularly of acute irido-cyclitis, hemorrhages into the anterior chamber of the eye and opacity of the vitreous body, induced me in 1879 to give this remedy a trial, selecting, to begin with, several cases of labyrinth

affection of an undoubtedly syphilitic nature. The rationale of this measure was that in virtue of the rapidly occurring change of matter the reabsorption of unorganized exudation products might be brought about. The results of this experiment were so satisfactory that at the second Otological Congress at Milan in 1880 I was able to recommend a continued trial of this method to my colleagues in cases of recent affections of the labyrinth. Since that time I have employed subcutaneous injections of pilocarpine in every variety of recent and chronic affections of the labyrinth, the results obtained by myself and others (Moos, Lucae, Wolf, Pollak, Barri) being in several instances so favorable that the value of muriated pilocarpine in labyrinth affection must not be underestimated. I have been in the habit of using a two-per cent solution, two drops of which are injected subcutaneously in the forearm and the dose gradually increased a drop at a time to eight. Following rapidly upon the injection there is a considerably increased secretion of saliva and sweat, which ceases after the lapse of from thirty to forty-five minutes. Rarely it is accompanied by disagreeable symptoms, such as nausea, vomiting, giddiness, fainting, collapse, spasm of the bladder, which can be antagonized by taking from two to three drops of atrop. sulphurici 0.03, aqua destillata 10.0. The injections are to be made daily. If after the lapse of a fortnight the use of this remedy does not produce an improvement in hearing it must be regarded as ineffectual, and be abandoned. But if, on the other hand, an early and distinct improvement in hearing can be observed, the injections should be continued as long as there is a progressive increase in the faculty of hearing to be elicted upon examination. The period in which the maximum of the hearing distance is attained varies from six to forty days. It is to be noted that the increase in the hearing power is rarely regularly proportional, since it is usually most rapid in the first week or fortnight, while in the subsequent course of the treatment it progresses very slowly. In rarer cases the reverse is true, the hearing power at first increasing slowly, and later more rapidly.

Vacillations in the hearing distance are not infrequently observed in the course of treatment, a rapid improvement of several days being promptly followed by a rapid diminution of it, lasting also for some days. The use of subcutaneous injections of pilocarpine, which was at first limited to syphilitic diseases of the labyrinth, was extended later also to those cases of deafness which were found to be dependent upon affections of the auditory nerve apparatus. This proceeding was indicated by

the rapid development of deafness apart from any discoverable anatomical damage in the middle ear, and confirmed by the result of the examination with the tuning-fork, the latter affording, I consider, important indications for the employment of pilocarpine. If the examination with the tuning-fork proves that in a case of extreme deafness the sound is heard perceptibly longer opposite the ear (air conduction) than from the mastoid process (positive experiment of Rinne); also that low tones are better perceived by air conduction than high ones; and lastly, if there is a history of symptoms pointing to the implication of the labyrinth, such as giddiness or total inability to hear the ticking of a watch through the head bones, then the existence of an affection of the labyrinth is very probable, and it is in such a case that the subcutaneous injection of pilocarpine should be employed. I use but rarely subcutaneous injections of pilocarpine in certain forms of acute inflammations of the middle ear.

In the first of my works mentioned below I have cited several cases of acute inflammation of the middle ear in which perforation had not taken place. Where a protracted local treatment failed to produce reabsorption of the hardened exudation products lying in the cavity, and where after three or four subcutaneous injections of pilocarpine a constant improvement could be observed, the effect must be referred to the speedy solution and absorption of such exudation products. In like manner the subcutaneous injection of pilocarpine is to be recommended in those cases of acute suppuration of the middle ear in which perforation of the tympanic membrane has occurred, and in the course of which deafness supervenes, dependent upon some complication of the labyrinth.

Within recent years I have used muriated pilocarpine locally in affections of the labyrinth and the middle ear, injecting from six to eight drops of a two per cent warm solution through a catheter into the eustachian tube and cavum tympani. When pilocarpine is thus employed in the above-mentioned concentration and quantity no unpleasant results supervene; it is only in rare cases that salivation and abundant diarrhoea are observed, and these soon after injection. In chronic catarrhs of the middle ear I inject pilocarpine into the tympanic cavity, particularly in those cases where the power of hearing is distinctly improved after inflation of the middle ear, and where a slight swelling in the eustachian tube can still be discovered upon auscultation. The object of the local application in these cases is to bring about a slight reaction in the mucous



membrane of the middle ear, and in this way to cause the absorption of inflammatory products. And, as a matter of fact, in some particular instances the improvement of hearing following these injections has been more pronounced than that obtained by the use of ten-per-cent solutions of soda, which until now have been most frequently employed. On the whole, the cases in which the local injections of pilocarpine produce a notable result are but few; in most cases the faculty of hearing does not improve at all, or the improvement is only indifferent and of short duration. Here, too, the treatment must not be extended beyond two or three weeks. It is quite otherwise with the so-called cases of chronic catarrhs in the middle ear, where the adoption of this method of treatment must be deprecated. I have already shown that in the year 1885 (*Wiener Med. Zeit.* 4, 5, 6), and again in my Text-book of Ear Diseases (1887), the treatment of dry catarrhs of the middle ear with pilocarpine is worthless. The position to-day has not changed. It must also be insisted upon that in every case of extreme deafness where the tuning-fork can be heard longer from the mastoid process than opposite the ear (air conduction, negative experiment of Rinne), and in addition, where low tones are not at all or only faintly perceived through the medium of air, while high ones are at the same time very distinctly heard, the subcutaneous treatment with pilocarpine is strongly contra-indicated.

The above remarks have been found necessary from the circumstance that for some time past I (I am not singular in this experience) have been consulted by many patients suffering from extreme deafness who had been previously treated by other aurists for several weeks, or even for several months, with subcutaneous injections of pilocarpine without the slightest benefit, in the cases of which an examination showed the presence of a marked sclerosis of the mucous membrane of the middle ear.

While it is true that the subcutaneous injections of pilocarpine usually can be tolerated by the patient for several weeks without any unpleasant consequences, still there are cases in which its protracted use has produced loss of appetite, faintness, and considerable emaciation. When I consider the abundant salivation and diaphoresis, so disagreeable to the patient, which are associated with the daily use of this remedy, I feel it my duty to say that those practitioners who in all cases of extreme deafness indiscriminately—that is, without a previous careful examination by means of the tuning-fork, and consequently without any differential diagnosis between affections of

the middle ear and those of the labyrinth—subject their patients to a long and wearisome course of treatment with pilocarpine are not too conscientious in the discharge of their calling.

The following is a summary of the above: (1) The subcutaneous injections of pilocarpine are particularly indicated in recent affections of the labyrinth, be they of a syphilitic nature or not. In protracted diseases of the labyrinth these injections, if tried, must be abandoned if no improvement results after from ten to fifteen injections. (2) The subcutaneous injections of pilocarpine are but rarely employed in otitis media acuta, where the cavum tympani contains hardened exudative products, which resist reabsorption, nor, moreover, in panotitis gemina diphtheritica, or in other diseases produced by infection. (3) The subcutaneous injections of pilocarpine are decidedly contra-indicated in cases of dry sclerotic catarrhs of the middle ear. (4) Injections of several drops of a two-per-cent solution of muriated pilocarpine through the catheter into the tympanic cavity are beneficial in some cases of catarrhs connected with swelling and a slight secretion of the mucous membrane of the middle ear, continued from one to three weeks alternately, with inflations of air by Politzer's procedure. The purpose of the present communication is to reduce to a just measure the therapeutic value of the subcutaneous injection of muriated pilocarpine in diseases of the ear, and to draw attention to the frequent abuse which has been made of this remedy for some time past.—*Dr. Adam Politzer, London Lancet.*

RECENT RUSSIAN CONTRIBUTIONS TO THE SURGERY OF THE LARYNX.—(1. Extirpation of the Larynx for Cancer, by Dr. Nikolai M. Voskresensky, of St. Petersburg. St. Petersburg Inaugural Dissertation, 1890, No. 43. 2. On Partial Laryngotomy, by Dr. Ivan A. Praxin, of St. Petersburg. St. Petersburg Inaugural Dissertation, 1890, No. 76.) The first monograph, written under Prof. D. I. Koshlakoff's guidance, is based on the digest of 166 cases of total or partial extirpation of the larynx, collected from international literature. The essential points of the work may be given thus:

I. Total extirpation: 130 cases, of which 17 operated upon by 7 Russian and Polish surgeons—namely, by Prof. P. I. Multanovsky 4, Reiher 6, Kosinski 3, Prof. S. Bergmann 1, I. F. Sabaneev 1, Krajewski 1, Krajewski and Wioblewski 1.

1. The patients' ages varied from twenty-five to eighty, about 65.4 per cent of the num-

her referring to subjects aged from forty-five to sixty-five.

2. As to the sex, in 14 cases it was not indicated; of the remaining 116, 92 referred to men, and only 24 to women.

3. Of 130 cases, 52 were epitheliomatous, while in 78 carcinoma (76 encephaloid, 2 scirrhus) was present.

4. Of 70 cases, giving details on the point, in 10 the new growth was circumscribed, in 66 diffuse. In 13 the left half of the organ was chiefly involved; in 14 the right; in 39 both of the sides were affected fairly equally; in 12 the posterior wall was diseased.

5. Of 78 well-detailed cases, in 27 the laryngeal cartilages were consecutively involved, in 4 of which necrosis of the structure was followed by the formation of a fistular tract opening externally on the anterior aspect of the neck.

6. In 19 cases the disease consecutively spread over the pharynx and gullet; in 19 over the trachea; in 4 to the hyoid bone; in 2 to the base of the tongue; in 1 to the pharynx, esophagus, tongue, and hyoid bone simultaneously; in 1 to the thyroid gland.

7. In 7 cases the laryngeal disease was of a secondary origin, the new growth spreading to the organ from the pharynx and gullet (6 cases) or thyroid gland (1).

8. Of 44 cases, mentioning the detail, the cervical lymphatic glands were enlarged only in 14 (31.8 per cent), while in the remaining 30 they were apparently normal.

9. Of 51 cases, in 11 the duration of the disease before the operation was under a year; in 16, from one to two years; in 17, from two to three; and in 7 over three years.

10. Of 39 patients only 1 was well nourished; in 27 the general state was bad, in 11 of a "mildling" sort.

11. Of 64 cases, in 5 no preliminary tracheotomy was performed; in 11 it was made immediately before the extirpation; in 5 a few days previously; in the remaining the interval oscillating between one week and one year or 41 cases more.

12. In 41 cases the extirpation was performed after Beltratti's method; in 15 after Langenbeck's; in 9 after Maas Bruns-Pear's; in 7 after Kahn's; and in 3 after Bottini's.

13. In 20 cases there were removed, beside the larynx, portions of the pharynx and gullet as well; in 12 the whole or a fragment of the hyoid bone; in 3, a portion of the base of the tongue; in 14, cervical lymphatic glands; in 4, the thyroid gland; in 11, one or several upper tracheal cartilages; in 14, the epiglottis.

14. Of complications of the operation there were noticed profuse bleeding (6), wounding

largest-sized cerebral vessels (1), passing of blood down into the trachea (6), dissection of the trachea into the thoracic cavity (4), shock (3).

15. The operation lasted from twenty-five minutes (6) (other cases) to one hour and forty-five minutes.

16. Of 44 cases, in 23 the after-course was entirely apyretic, while in 21 there was observed a short-lasting fever (up to 40° C.).

17. Of 40 cases, in 10 the wound healed "quickly;" in 10, in from three to four weeks; in 25, in from four to eight; in 2, in more than two months.

18. Of complications of the after-course there were observed secondary hemorrhage (6 cases), blood-spitting (2), and erysipelas (1).

19. As regards the issue, in three cases it remained unknown; in 24 (18.6 per cent) recovery ensued; 38 (74 per cent) died; in 5 (3.8 per cent) recidive occurred (ten patients being alive at the time of respective communication).

20. Of the 24 cases of recovery, 10 (41 per cent) remained still healthy when seen from three to twelve months after the operation, while 11 (8.6 per cent) were known to have survived without any signs of recurrence of the disease for from sixteen months to five years. Of these 11 cases of a seemingly complete and permanent cure, 2 referred to women and 9 to men, aged from forty to fifty (4), from fifty to fifty-five (6), and sixty-two (1). The duration of the disease, 6 cases of epithelioma and 5 of carcinoma before the operation varied from one to two and one half years.

21. Of lethal cases, in 32 death was caused by pneumonia, 1 by purulent bronchitis, 2 pulmonary edema, 1 pulmonary embolism, 2 pleuro-pericarditis, 3 consecutive hemorrhage, 2 septicemia, 6 collapse, 26 recidives, 6 exhaustion, 2 croupous pneumonia, 4 asphyxia; one patient committed suicide about nine months after the operation; in 11 the cause of death remained unknown. In a more or less direct connection with the operation death occurred in 40 (48 per cent) cases, of which, as was just mentioned, about two-thirds died from pneumonia, and that mostly—17 out of 31—in the course of the first two weeks after the operation. Recidives occurred in the second month after the extirpation (3 cases), the third (3), fourth (7), sixth (1), seventh (2), from the eighth to the twenty-first (5).

22. Partial extirpation, 36 cases, including 4 Russian, operated upon by Prof. Salimovsky 1, Richter 2, and Prof. Semenovskiy and Mul-timovsky 1.

1. Age varied from twenty-five to eighty years, 20 patients being aged from forty to seventy.



2. Sex: 29 were men, only 8 female, in 4 cases unknown.

3. The duration of the disease before the operation oscillated from seven months to one and one half years.

4. Cervical lymphatic glands were said to be enlarged only in 7 cases.

5. Of 36 cases, in 24 carcinoma was present, in 12 epithelioma.

6. In 11 cases the left half of the larynx was affected; in 10 the right; in 1 the posterior wall; in 1 the cricoid and upper tracheal cartilages. In 12 a diffuse new growth existed; in 3 a circumscribed one; in 6 an "ulcerated." In 5 the disease involved pharynx, gullet, tongue, hyoid, bone, and trachea.

7. Of 16 cases, in 3 no preliminary tracheotomy was performed; in 5 it was made just before the extirpation; in 3 a fortnight previously; in the remaining the interval oscillating between three weeks and a year.

8. The wound healed in from two to eight weeks. The swallowing became free mostly on a second or third week, sometimes as early as a third or fourth day, and never later than one month.

9. Of 36 cases, 12 recovered, 17 died; in 6 the disease recurred.

10. Of 13 cases of recovery, 9 were known to have survived from one to fourteen months after the operation; 1, one and one half years; 1, three years; 1, five; 1, eight years.

11. Of unfavorable sequels of the operation, laryngostenosis was observed in 2 cases.

12. Of 17 lethal cases, 9 (52 per cent) died (8 in the course of the first week, 1 in the fifth) from causes connected with the operation (3 from pneumonia, 3 collapse, 1 septicemia, 1 consecutive hemorrhage, 1 mediastinitis); 7 (44 per cent) from the primary cause (cancer); 1 committed suicide.

13. Recidives occurred in a second month (4) or in from three to eighteen (5).

III. General conclusions: 1. Extirpation of the larynx for cancer must be regarded as a fully justified surgical procedure, since it undoubtedly affords the possibility of a radical cure.

2. Be the selection practicable, a partial extirpation should be preferred to a total one, since the former is less dangerous and more advantageous in functional regards.

3. The operation is absolutely contra-indicated only in the presence of an extreme exhaustion, and in subjects older than seventy years. Neither enlargement of cervical glands, nor the spread of the disease over the structures adjacent to the larynx can be regarded as absolute contra-indications.

4. To secure most satisfactory results, the

operation must include such steps as (a) a preliminary tracheotomy; (b) insertion of Kahn's or Michael's tracheal cannule; and (c) a preliminary laryngo-fissure.

5. As far as possible, the operation should be followed by the insertion of this or that artificial vocal apparatus. Bruns' artificial larynx should be preferred to Gussenbauer's.

6. All accessible recidives occurring after the extirpation should be similarly subjected to a surgical treatment.

7. The strikingly more successful results obtained from the extirpation during the last eight years (in comparison with the preceding eight years) must be attributed to a better (aseptic) management of the wound, and to the use of more perfect tracheal tubes.

IV. This valuable contribution by Praxin is based upon (a) extensive experiments and anatomic researches on dead bodies; (b) 17 clinical cases from this author's practice; and (c) an analytical review of 194 cases from international literature, of which 120 were derived from German sources, 41 French, 19 British, 11 American (U. S.), and the remaining from Russian (Prof. N. P. Simonovsky's 2 cases, and S. Massuriantz' case), Italian, and Danish. [The review is, of course, very far from being exhaustive. Thus it does not include Kopmann's 21 cases, Prof. E. Ericson's, etc.—*Reporter*.] The author's own cases refer to 9 male patients, aged from two to fifty-two, and 8 female, aged from five to fifty-three, who were suffering from laryngeal cancer (4), syphilitic laryngitis (3), laryngeal perichondritis (2), croupous or diphtheritic laryngitis (2), tubercular (1), hyperplastic (2), submucous (1), laryngitis, laryngeal abscess (1), and lympho sarcoma colli (1). In rough outlines, his method (as practiced by him since May, 1886), a "rapid laryngotomy," consists of the following operative steps: (1) With two or three sweeps of the knife he makes a vertical incision, from one and one half to two and one quarter inches long according to individual peculiarities of the case, into the freely movable integuments, including the subcutaneous fatty layer. (2) Having thus reached the third fascia, that is, the superficial sheet of the cervical fascia, covering the immobile musculo-aponeurotic stratum, he divides the latter along the median line through its whole thickness down to the visceral fascia. (3) Then he introduces his forefinger into the wound, and, having found the cricoid cartilage, fixes the larynx, under the lower edge of the thyroid cartilage, by means of Bromfield's sharp hook, after which (4) he plunges a narrow-bladed and sharp-pointed knife into the cricothyroid space, penetrating directly through the cricothyroid membrane into the larynx.

(5) Then he inserts into the (vertical) laryngeal wound a Troussseau's dilator, opens it and introduces a suitable cannula (usually Luer's No. 3 in adults, and No. 0 in children). (6) The patient is now rapidly made to assume a sitting posture, in order to prevent the blood flowing into the larynx, and the operator proceeds to tie any bleeding vessels, finishing by inserting some sutures into the wound of the soft tissues.

As a rule (in 13 out of 17 cases) the operation proves to be fairly easy, taking from one to five minutes' time. The crico-thyroid wound commonly embraces the cannula sufficiently tight to prevent any penetration of blood into the trachea, notwithstanding a rather profuse venous hemorrhage. The main propositions laid down by Dr. Praxin may be briefly summarized as follows: (1) Speaking generally, laryngotomy can be performed far more rapidly compared with tracheotomy. (2) It should be undoubtedly preferred to the latter in the presence of the following conditions: (a) hypertrophy of the thyroid gland, or a greatly developed isthmus, provided the asphyxiative symptoms necessitating the operation are dependent upon other causes than pressure by the hypertrophied organ; (b) tumor of the cervical glands (lympho-sarcoma, etc.), covering the trachea or displacing it laterally; (c) inflammatory or phlegmonous swelling of the neck; (d) an abnormally short distance between the cricoid cartilage and manubrium sterni (in very short-necked persons); (e) high-graded asphyxia or profuse hemorrhage in thick-necked subjects. (3) Laryngotomy may be successfully re-orted to (instead of tracheotomy) in all possible stenoses above the conoid ligament (be they dependent upon simple edema of the larynx or phlegmonous laryngitis, laryngeal perichondritis, or cancer, etc.). (4) It is, however, absolutely contra-indicated in cases of tracheal intrinsic strictures, as well as in those of stenoses (hyperplasy, scars, abscesses), situated in the lower division of the larynx or at the level of the cricoid cartilage. (5) Tracheal stenoses, caused by outside pressure (by hypertrophied thyroid gland, aortic aneurism, large abscesses), constitute but a relative contra-indication, according to individual peculiarities of the case. (6) Contrary to the views of French surgeons, laryngotomy is by no means contra-indicated in children. (7) A prolonged wearing of the cannula after laryngotomy is apt to be followed by wasting of the crico-thyroid muscle with consecutive corresponding functional disturbances (loss of high tones on vocalization, etc.). The sequel is especially liable to occur in subjects with a narrow crico-thyroid space, and after wearing a large sized cannula. It may be pre-

vented, at least to a certain extent, by dividing the conoid cartilage (simultaneously with the crico-thyroid membrane) and inserting a small sized cannula. Still, in view of the risk, laryngotomy should be avoided "in all such cases (especially in sinners) where the patient's vocal apparatus is affected by the morbid process only to a slight degree, and where a complete restoration of the vocal functions can be reasonably expected." (8) Laryngotomy, or rather wearing a laryngeal cannula, never gives rise to laryngeal perichondritis or ulceration of the laryngeal mucous membrane. An unduly bulky cannula, however, can sometimes (3 cases out of 211) cause hyperplasia of the membrane. The only peculiar complication of laryngotomy is constituted by fracture of a degenerated cricoid cartilage, which, however, occurs but very rarely (4 cases out of 211, ending fatally from other causes than the complication, which was detected only on the necropsy).—*Annals of Surgery*.

HISTOLOGICAL CHANGE IN THE TISSUES AFTER INJECTIONS OF KOCH'S FLUID.—Although many papers have already appeared upon the clinical aspect of Koch's treatment of tuberculosis, very little is as yet known of the changes which take place in the affected tissues. Dr. Browicz, of Korakow, has made some investigations in regard to this point, and his results are published in the *Centralblatt für die Medicinischen Wissenschaften*, 1891, No. 1. The first case examined was that of a girl aged eight, suffering from caries of the left metacarpus and elbow. There were some fistulous openings leading to the dead bone, which discharged a small quantity of thin pus. The edges of the sinuses were pale. Six milligrams of the liquid were given, with the result that there was a well-marked reaction, with local pain, and considerable redness and swelling around the neighborhood of the sinuses; brownish crusts soon commenced to form. Sixteen hours after the injection a small piece of tissue was removed from the circumference of one of the sinuses and submitted to careful microscopic examination. It was first placed in alcohol, when a small piece of the substance floated off; under the microscope this exhibited epithelial scales and numerous leucocytes. Sections cut from the original specimen showed the following characteristics: The epidermal layer contained numerous leucocytes which were partially distributed between the epidermal cells and were partially collected in groups, these being largest in the most superficial layers. On the surface these gave the appearance of small vesicles. In many places they had given way, and the contents had escaped; in other places



the cells of the epidermis had been detached and heaped together, inclosing leucocytes in their interstices. In such situations the epidermis presented very much the same appearances as in a smallpox vesicle. The capillaries were also crowded with leucocytes. In the deeper layers of the skin a copious infiltration of small round cells was again to be seen, sometimes so thick as to almost hide the tubercular nature of the disease. Here and there the tissue had broken down, so that small abscesses were formed. Numerous small hemorrhagic patches were noticed, the structure of the tissue being quite obscured. Specimens taken from another patient presented similar appearances, and the same have been described by Israel and Kromeyer.

Dr. Browicz draws the following conclusions: (1) That the changes occurring in tuberculous tissues after an injection of Koch's liquid are different from the necroses which usually accompany them. (2) That a specific form of inflammation is induced. (3) That this may assume a hemorrhagic form. (4) That finally the inflammation results in the destruction of the tuberculous tissue, and that this result is due to a distinct chemical action. Dr. Browicz considers that the tubercle bacilli may either be carried away by the exudation which is poured out, or else, if the disease is deeply seated, there is great danger of the organism being carried by the blood-stream to healthy tissues, so setting up local or general tuberculosis.—*London Lancet*.

**EXPLORATORY PUNCTURE OF THE FEMALE PELVIC ORGANS.**—In years gone by, when the mortality of abdominal section as then performed was enough to appall even a stout heart, the necessity of making an absolutely exact diagnosis was far more important than it is at the present time. Then the advantages of a proposed operation had to be weighed in the balance against a prospective mortality of seventy-five, fifty, or finally twenty-five per cent. Hence it was justifiable to operate only for conditions in themselves necessarily fatal, and to select the most favorable cases. The use of the aspirator was considered to be a most desirable way of differentiating between various pelvic growths. Experience showed, however, that the information gained by the use of the aspirator was often far from satisfactory, and that even after its use a positive diagnosis was often impossible. Moreover, its use was not free from danger. With the introduction of modern aseptic surgery the danger attending simple exploratory abdominal section became so slight that surgeons have employed this

method of diagnosis in obscure cases, affording as it does at the same time an opportunity to effect a cure. Exploratory puncture has fallen more and more into disrepute, being regarded as an uncertain method of diagnosis, at the same time being more dangerous than exploratory abdominal section.

At a recent meeting of the New York Academy of Medicine Dr. G. M. Edebohls read a paper, giving his experience with exploratory puncture of the female pelvic organs, and attempts to make the method again popular with the profession. He prescribes an elaborate technique: full antiseptics, outlining and fixing the mass to be punctured, and puncture with the aspirator syringe from the abdominal surface. Seventy cases are reported in which the method was employed without untoward results. The author advises that the method be used only by the expert, lest harm rather than good result. In the discussion, in which Coe, Dudley, Boldt, Murray, Jewett, and others took part, the method met with opposition on the ground that it is a question whether it is right to expose a patient to the danger of puncture of the intestines, with consequent peritonitis and probably death, where it is possible to secure such good results from abdominal section if a diagnosis can not be made without an exploratory operation of some kind. This opinion is undoubtedly in accord with the sentiment of to-day. If it be possible to so outline a mass as to be able to fix it with the examining fingers for exploratory puncture, it should be possible to form an intelligent opinion as to its nature. It is the "masses" which can not be outlined definitely, and which consequently are not adapted for exploratory puncture, concerning which there will be the most doubt, which doubt in proper cases must be cleared up by abdominal section. Finally, it is to be hoped that the method proposed by Dr. Edebohls will never become popular, as its possibilities for harm far outweigh its possibilities for good.—*Medical and Surgical Reporter*.

**RESECTION OF THE LIVER.**—On December 8th Prof. Iginio Tansini, of Modena, performed total extirpation of a hydatid cyst of the liver, at the same time excising a portion of that organ. There was very free hemorrhage from the large cut surface of the liver, which was controlled by catgut ligatures. The wound in the liver was closed by means of sixteen sutures, partly silk, partly catgut. The operation was followed by no rise of temperature, and the patient (a woman) was quite well in less than a fortnight.—*British Medical Journal*.

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## PASTEUR AND HIS ENEMIES.

At a moment when Pasteur has been apparently promoted to a secure apotheosis, and new eligibles are being sought to share with him the superabundance of divine honors, it comes like a discord in a grand orchestra for men eminent themselves to stand out and boldly declare to the world that the renowned savant is wearing unearned laurels. But that is just what has been done by two eminent Paris physicians, one of them Dr. Lutaud, editor of a leading medical journal, the *Journal de Medicine de Paris*, and the other Prof. Peter, member of the Academy of Medicine. They not only charge Prof. Pasteur with exploiting procedures in themselves worthless, but with exploiting them for gain, and with interfering in political matters for the purpose of unfairly promoting his personal interests.

In a book of some four hundred and forty pages, a second edition of which has just been published by Dr. Lutaud, the whole history of the Pasteur discoveries has been gone over, as indeed they have been from time to time in the author's journal. In the first place, the originality of the discovery that repeated inoculation may confer immunity is denied to Pasteur.

In 1821 Magendie published in his *Journal of Physiology* a series of experiments proving that by successive inoculations hydrophobia limited itself after the third generation or repetition in different animals. These experiments with their results were republished in Paris in 1868 in a work entitled "What to do till the Doctor comes."

In 1879 M. Galbrier, professor in the Veterinary School of Lyons, wrote a communication to the Academy of Sciences announcing that he had discovered that rabies is transmissible to rabbits, and that they thereby became a convenient and harmless instrumentality for determining the virulence or non-virulence of various fluids derived from rabid animals.

In 1879, in April, Dr. Deloué, of Pau, communicated to the Academy of Sciences, through M. Bouley, a treatise on hydrophobia, in which he declared his conviction that the destination and seat of the rabic virus is the medulla.

Pasteur is a member of the Academy of Sciences, to which these communications were made. So much for originality.

Passing over the charges in which Pasteur is made to take part in the working of political machinery to promote the election of Paul Bert over Davaine to membership in the Academy of Sciences, for the purpose of securing through M. Bert large government bounties, and to which there may be two sides, we come to the actual status of the several discoveries in the matter of inoculation.

It is shown that Pasteur had made a contract to sell for 1,000,000 francs the total rights of sale of the modified virus of charbon, which fell through because the syndicate could not raise the money, and because at the time confidence was being lost in it and the sales were diminishing; and this while it was stated by M. Paul Bert in the Chamber of Deputies that Pasteur had nobly refused, and declared that since he was receiving a pension from the State his works belonged to the State.

It is now a fact current that inoculation against charbon has gone out of date, the general impression being not only that it is not permanently of value, but that it is even dangerous and destructive. The outcome in chicken



cholera and the rouget of pigs has been about the same.

The process invented by Pasteur to further the manufacture of beer of fine quality in France, and which was in its turn heralded as a great addition to the sources of wealth available for France, has been absolutely abandoned.

His labors with the silk-worm have not prevented the steady decline of silk culture in France, the official statistics showing that from 17,000,000 to 18,000,000 of kilograms of cocoons were produced in 1865, when he gave out his discovery for the protection of the silk-worm. The amount has steadily declined to 3,000,000 or 4,000,000.

But what of the protective measures against hydrophobia, the crowning task of all the works of the great chemist? Dr. Lutaud shows beyond all cavil, by government statistics and hospital statistics that are accessible to all, that from 1850 to 1872 inclusive there was a total of 685 deaths from hydrophobia in France, or an annual average of 30. 17 died without treatment in France in 1886, and 22 with treatment. From the 1st of November, 1886, to the 1st of November, 1887, 27 died under treatment; 23 in the year ending November 1, 1889, and 21 in 1889—a reduction from the former average of about 5 per annum. In the year ending November 1, 1886, 1,538 persons were treated for bites by rabid dogs. Claiming with Le Blanc that 16 per cent of all persons so bitten become hydrophobic, this would give for that single year 246 cases of hydrophobia that would have been but for Pasteur's treatment. But it happened that 16 of these cases died, so that there were 230 lives saved by the Pasteur treatment!

Dr. Lutaud shows further that the number of persons dying of hydrophobia has steadily gone down in all other countries besides France without treatment, and that in some of them it has become a thing unknown. Can we then think Dr. Lutaud too bold in declaring that Pasteur's system of inoculation actually tends to spread hydrophobia in France? This apprehension is further strengthened by the fact that many of these are cases of paralytic hydrophobia, which is the hydrophobia, as a rule, of inoculation.

It matters not how much the world may be dazed by the brilliant name of Pasteur or how much misled by blinded partisans, there is no escaping the principal conclusions of Dr. Lutaud in this matter. For to believe that, while in all other countries hydrophobia is decreasing, in France, beginning exactly with the discovery of a supposed preventive, there should happen in that country enough cases to allow nearly three hundred a year to be cured, and still leave a much larger number than the statistics of the country are entitled to when compared with those of other lands!

We would not rob Pasteur of a leaflet of his merited laurels. He is one of the great men of time, whatever critics closer to him may be led to feel when they see him wearing unmerited honors. He has made discoveries and given a stimulus to discovery that will resound onward through the years to come; but that is no reason why the whole world should fall down in worship of men like themselves and be made blind to the most glaring inconsistencies. And while we honor Pasteur, we honor Lutaud and Peter, who, in the glamour of hero worship, still have the discernment and the courage to speak what they regard as the truth.

#### ANOTHER SKEPTIC.

Mrs. Blinkers: "I hear Dr. Curem has got back from Berlin. You must go around at once and see if he has obtained any of Prof. Koch's lymph." Mr. Blinkers: "He couldn't get any; I met him in the street." "Did he tell you he couldn't get any?" "No; but he told me he had doubts of its curative properties." (New York Weekly as quoted by the Medical Record.) The woods are, and have been for some six or eight weeks, full of just such honest doubters as Dr. Curem; but if there is any thing in rumor, the skeptics are not confined to the sour-grape class. Recent reports from the hospitals of the East, where injections of the lymph have been made upon a large scale, are at best not very encouraging, and it is not improbable that Mr. Blinker's symptom will soon cease to be pathognomonic of the alymphic state.

## Notes and Queries.

**DEPOPULATION OF FRANCE.**—It is somewhat startling to find that the depopulation of France is becoming a common subject of discussion among the savants of that country. The phrase is perhaps somewhat stronger than the circumstances of the case warrant, the fact being that the population of France is simply stationary. Still it is a striking and significant circumstance that while the population of all the other great European nations is steadily and rapidly advancing, that of France remains at a standstill. On economic grounds this arrest of increase in number might seem not altogether an unmixed evil, inasmuch as it should tend to diminish over-competition, and to ease the already excessive struggle for existence among the lower classes; but an impression widely prevails, that given a fairly normal and healthy social condition a growth of population is a natural result, and that a stationary or declining population is an index of some grave disorder of the body politic. We can not adequately discuss this large and difficult question, but our French neighbors evidently think that something is amiss, and are looking around for the cause and for its remedy. Probably the causes are numerous and complex. Social habits may account for a good deal. The French custom of subdividing land and of providing a dowry for girls offers an obvious motive for keeping down the number of children. Where, as in the west of Ireland, the peasantry have a cheap food supply, and are constitutionally averse to thrift, large families are the rule; but in France thrift is a virtue carried almost to excess, and the obligation of the parents to provide for each new accession to the family is clearly recognized. Moral causes have been supposed to play a large part in the arrest of the population of France, and we are far from underestimating their importance, but this a difficult and delicate problem, on which it would be rash to dogmatize without the most ample evidence.

While some of the causes of the phenomenon under discussion may be obscure and remote, others lie under our eyes, and can not

be too carefully scrutinized or too frankly acknowledged. In a recent address before the Académie de Médecine, Dr. Brouardel drew attention to the abnormal mortality from smallpox and typhoid fever which prevails in France. He points out that while Germany loses only 110 persons per annum from smallpox, France actually loses 14,000. Dr. Brouardel attributes this astounding difference to the rigid way in which vaccination is enforced in Germany, and to the carelessness of his own countrymen in this matter. Statistics show that in 1865, when vaccination was not obligatory in Prussia, the mortality was 27 per 100,000 inhabitants. After vaccination was enforced the mortality fell in 1874 to 3.60 per 100,000, and in 1886 to 0.049. At the present time the mortality from this cause in France is 43 per 100,000. We make a present of these figures of Dr. Brouardel to the Royal Commission on Vaccination.

As regards typhoid fever the deaths due to this disease in France amount to 23,000 per annum. Dr. Brouardel gives a great variety of statistics to show that the liability to typhoid is in direct proportion to the imperfections in the water supply, and that in proportion as a sufficient supply of pure water is provided typhoid abates. Thus at Vienna the typhoid mortality was 200 per 100,000 while the inhabitants drank surface, hence often polluted, water; but this mortality fell to 10 per 100,000 on a thoroughly good supply being obtained. At Angoulême the introduction of a new supply of pure water reduced the number of cases of typhoid in the proportion of 0.063 to 18. At Amiens, among the military population, the typhoid mortality fell from 111 per 10,000 to 7 when a pure supply of water was secured by artesian wells. At Rennes the inhabitants formerly drank from contaminated wells, with the result that typhoid fever was always endemic. The introduction of pure water reduced the deaths from typhoid among the military population from 43 per 10,000 to 2. Investigations carried out at Besançon, Tours, Carcassonne, Paris and Bordeaux entirely corroborate the above striking figures. Typhoid fever is responsible for the deaths of 1 soldier in 335 in France, or



298 per 100,000, and this in time of peace. In war its ravages are even far greater. Thus the expeditionary corps to Tunis in 1881, consisting of 20,000 men, had 4,500 cases of typhoid with 884 deaths.

Dr. Brouardel concludes by affirming that if vaccination and re-vaccination were rendered obligatory in France, and if the towns were everywhere supplied with pure water, the country would save from 25,000 to 30,000 lives annually, and these, for the most part, of young persons of marriageable age. He therefore proposes to the Academy to adopt the following conclusions: "That the sanitary law in preparation ought to render vaccination obligatory; it ought to furnish sufficient authority to the municipalities, or in their default the Prefect or the Government, to secure the public health against the dangers which result from using polluted water."

In the discussion which followed Dr. Brouardel's communication many important points were elicited. One speaker drew attention to the evils which arose from cheap lodging-houses. Another insisted upon the superiority of supplying pure water to any methods of filtration. At Angoulême filtration was tried with some advantage, but the provision of a pure supply proved much more successful.

We may learn something from the anxieties of our neighbors. If the outcry against compulsory vaccination now prevailing in some quarters in this country should unhappily effect any slackening in our vigilance in this matter, we shall surely pay the penalty in a heavier mortality from one of the most loathsome of diseases. The example of Germany in this matter is admirable, and can not be too widely known or too carefully followed. The provision of an absolutely pure supply of water to our large cities is a much more difficult problem than the thorough enforcement of vaccination, but it is at least the ideal toward which our efforts must be directed. It is an immense gain to know positively both the source of danger and the means of averting it, and we must never rest content so long as an acknowledged source of disease, misery, and national weakness is permitted to exist in our midst.—*Lancet*.

HYGIENE AND DEMOGRAPHY.—I am requested by the Hon. Secretaries of the Committee of Organization of the Seventh International Congress of Hygiene and Demography to call attention to the fact that this Congress will be held in London during the week beginning August 10, 1891.

The governments of all countries and municipalities, and all public health authorities, universities, colleges, and societies occupied in the study of the sciences more or less immediately connected with hygiene are invited to co-operate and appoint delegates to represent them at the Congress.

A Committee of Organization has been formed, of which Sir Douglas Galton is Chairman, and Prof. W. H. Corfield and Mr. Shirley F. Murphy are Honorary Secretaries. An exhibition of articles of hygienic interest will be held in connection with the Congress. The last of these Congresses was held in Vienna in 1887, and was attended by over two thousand persons, and it is expected that the London meeting will be one of great magnitude and importance.

JOHN S. BILLINGS, M. D.

*Member of the International Permanent Committee.*

AN ARMY MEDICAL BOARD will be in session in New York City, N. Y., during April, 1891, for the examination of candidates for appointment in the Medical Corps of the United States Army to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War before April 1, 1891, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-one and twenty-eight years of age, and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing the Surgeon-General United States Army, Washington, D. C.

C. SUTHERLAND,

*Surgeon, General United States Army*

**HABITUAL ABORTION.**—The British Medical Journal, December 20, 1890, states that at the meeting of the Obstetrical Society of London, December 3, 1890, Dr. Leith Napier read a paper on habitual abortion. Some authorities assert that "habitual" abortion is often due to indefinite sources of uterine irritation impossible to recognize. Others esteem syphilis as the most common cause of habitual abortion. Both views are disputed by Dr. Napier. Apart from disease, malformation, or physiological incompetency, there is no "habit" of aborting. The pathology of "habitual" abortion is the same as that of ordinary or single abortion. Turning to etiology, Dr. Napier showed that more than half the cases were due to uterine congestion or disease, and only 9 per cent to syphilis. Reflex causes were discussed; at most only 7 per cent were truly reflex. Syphilis is much more commonly the factor of premature birth than of abortion. Seventy-seven per cent of women subject to "habitual" abortion are either nulliparous gravidæ, who begin their obstetric career by frequent abortions; or multiparous women, who often terminate fecundity by repeated abortions. Women who habitually abort are, as a class, very fertile. "Habitual" abortion is highly amenable to treatment. Over 67 per cent of the patients were delivered at term after cure of the cause of the "habit." Dr. Napier, in reply to a question, said he had wholly avoided treatment in his paper, but he regarded viburnum with favor. He thought congestion of the uterus more important as a factor in abortion than retroflexion. He admitted the importance of chronic cardiac disease.

On February 3d Dr. John S. Billings was chosen by the trustees of the University of Pennsylvania director *pro tem.* of the new Department of Hygiene, and Dr. A. C. Abbott, of Johns Hopkins University, first assistant in the department.

**THE LYMPH AND ITS REACTIONS.**—The publication of Prof. Koch regarding the composition of the lymph, considering the great expectations which have been aroused concerning it, is rather disappointing than otherwise. With few exceptions his statements have been already anticipated, and in many other respects no new facts have been added to those that have been accumulating during the past few months.

Aside from the mention of the ingredients contained in the fluid, we are in little if any better condition as to the possibility of its production in our own laboratories than we were before. Still, the information, as far as it is given, will add much interest to the study of the results of lymph treatment in their relations to the supposed causes of their production. In other words, we are so much the better enabled to think for ourselves, and so much the more encouraged to work in accumulating data by which the new theory must stand or fall. We are making enough progress in the latter direction to take courage accordingly, and hope for the best in the direction of eventually settling many of the mooted points of a startling revolutionary doctrine.

Much of the interest of our investigations has centered upon the value of the reactions, general and local, as diagnostic of tuberculosis in various parts of the body. Although the reactionary phenomena have been quite uniform, they have proved to be far from absolutely so. In numerous exceptional cases patients with well-marked phthisical symptoms have failed to respond to the diagnostic test, while the contrary has been true with patients who have been suffering from other than tuberculous diseases, or who are, in the general acceptance of the term, perfectly healthy. It is in no spirit of adverse criticism that such conditions have been noted, but rather with a feeling of disappointment that earlier anticipations have not been more fully realized. We are being forced to the conclusion that the value of the local and general reactions are more relative than positive, and that many modifying circumstances must necessarily be taken into account.

Then, as to the supposed mode of action of the lymph in destroying tuberculous tissue, or



scattering the bacilli, there is opportunity for much difference in opinion. The doctrine of specific action is losing rather than gaining ground in the light of present clinical experience here and abroad. Fortunately, the autopsies have been few, and pathological opportunities have been limited. So far there have been few lesions peculiar and striking enough to show any direct relations of cause and effect in the use of the remedy. Many observers have noted no changes whatever in tuberculous joints opened by surgical operation after the lymph has done its reactionary work, while others have described degenerative changes which may or may not have existed before the inoculation treatment was commenced. The examinations of lung lesions have shown equally various conditions from that of limited areas of injection around decomposing tubercular masses, as usually seen in cases under ordinary treatment, to that of extensive infiltration of neighboring tissue. The latter phenomena have been described also in connection with tubercular diseases of the larynx, where suffocation has been thereby threatened, and particularly in cases of lupus, in which the turgidity of surrounding parts has been almost the rule, and has been associated with incrustation of the surface.

While such effects confirm the predictions of Prof. Koch regarding local reactions, and encourage further study, we have as yet made no notable progress in ultimately curing tuberculosis, or in proving that the lymph acts differently from any other substance containing an active albuminoid substance capable of producing systemic poisoning with local manifestations. Theorizing on this basis, it would be legitimate to assume that any organic poison, similar to that which the lymph contains, would attack most strongly a weakened body, such as we find in tuberculous patients. The parts invaded by a degenerative disease, and necessarily most lacking in vitality, would be the first to be affected. As a consequence, strong reactions might easily occur in the shape of increased local congestions and infiltrations, with the usual attendant phenomena of an augmented general febrile disturbance. From such a standpoint it may not be difficult to

understand how the tuberculous tissue as such might be killed independently of any elective action of the lymph.

At best, we must admit that the simple destruction of the diseased tissue, even if such can always be assured, is but a part of a very complex process of cure for tuberculous disease. Something more is required than mere injections and resulting reactions.—*New York Medical Record.*

**TOTAL ABSTINENCE FROM TOBACCO NECESSARY.**—At a meeting of the New York Academy of Medicine Dr. J. A. Andrews related the case of a man, forty-six years of age, who had tobacco amblyopia, which grew worse in spite of the fact that he reduced his daily quantity of tobacco markedly. Finally he was led to give up tobacco altogether, and in the course of six months the optic nerve cleared up entirely and his vision became normal. This same patient came to his office two years subsequently with the statement that on rising that morning he had queer feelings, but no pain in the head nor body; he simply felt strange, and his sight was not good when he looked in a certain direction. Nothing was visible in the eye to account for the defect in sight, yet there was lateral heteronymous hemianopsia. The supposition was that it was due to cerebral hemorrhage, and the man was advised to go to bed, but instead he went down town to business and next morning was found dead in his bed. No *post-mortem*. There had probably been cerebral hemorrhage.

Dr. Weeks thought retro-bulbar neuritis could be placed on a more general basis than had been done this evening. It was an interstitial neuritis, and might be caused, he thought, by any condition which would produce a neuritis in other nerves of the body. Alcohol was the most common recognizable cause, but diphtheria, gout, rheumatism, etc., might produce it.

The president thought that when tobacco-poisoning reached a point where it produced disturbance of the heart there was something more than functional disturbance; there was a change either in the connective tissue or of the muscular fibers of the heart. Such hearts did not bear ether nor cocaine. He impressed the

fact that the heart condition was not functional; it was organic.

Dr. J. A. Jacobi having elicited from the president the opinion that in such cases there was never, as far as his observation had gone, entire recovery from the heart trouble, said that he could not agree with him. He knew persons who had had functional disturbance of the heart from tobacco poisoning recover entirely after the use of tobacco had been discontinued. That was a hope which he thought we should hold out to our patients, unless it could be shown that the lesion causing the disturbance was of a nature which did not admit of entire recovery.

The president thought Dr. Jacobi had in mind cases of disturbance of the stomach from use of tobacco, which caused reflex irritability of the heart.

Dr. Jacobi remarked that the president seemed to know his mistakes better than he knew them himself. He did not believe that he had made a mistake, although he thought there was room for diversity of opinion. He would be very sorry to have patients get the idea that their condition was an organic change in the heart which could not be remedied.

Dr. Andrews mentioned a case in which the man was obliged, twenty-five years ago, to give up tobacco on account of disturbance of the heart, and he remained well to day at seventy-six.

Dr. E. V. Agramonte said the condition of the optic nerve shown on the lantern slides was a hyperplasia of the connective tissue. He would ask whether any practitioner present had seen a connective-tissue hyperplasia in any other organ of the body produced by tobacco. Besides, in Havana, where they used a great amount of tobacco, there were comparatively few cases of amblyopia, fewer than in New York. In the cases seen there, the cause had been recognized as alcohol, not as tobacco. It was known, too, that alcohol would produce sclerosis in other parts of the body, and naturally one would expect that it might produce it in the optic nerve. As to the heart, he knew of no case in which it had been demonstrated *post-mortem* that tobacco had produced hyperplasia of the connective tissue in this organ.

He himself was not a smoker, yet for two years while in the dissecting room, he smoked and suffered from so called functional disease of the heart in a marked degree, and during that time had had occasion to undergo ether narcosis, and the doctors said he took the ether well. As soon as he quit tobacco he ceased to have heart symptoms. Then it was known that persons would admit the use of tobacco and deny the use of alcohol, which might lead one to suppose that the amblyopia was due to the use of the former, when in fact it was due to the secret use of the latter.

Dr. D. B. St. John Roosa took the view of Dr. Agramonte, which was that held by him some years ago. That is, he was an agnostic with regard to tobacco amblyopia. It had not been proven.

Dr. Knapp, in replying to Dr. Roosa, said it was not alone a question of the use of tobacco, but of the kind of tobacco, or the nature of the poison in the tobacco, which might not be the same in all kinds. As bearing on the heart affection, he said organic changes might exist, as seen in the optic nerve, yet function be restored.

CLINICAL AND EXPERIMENTAL STUDIES UPON INFECTIOUS SURGICAL DISEASES. — (Dr. Julius Fessler, of Munich.) In these experiments, which were made under the late Professor Nussbaum, the author has followed in the footsteps of his master. After a few preliminary remarks upon the manner in which these experiments were conducted, the author commences with a brief history of this new but not invaluable addition to our armamentarium. The ichthyol exists in bituminous masses in certain Tyrolean regions, and is the resulting remains of fishes and other marine animals that have existed in past ages. From these masses an oil is obtained which is called ichthyol oil. This oil, when mixed with concentrated sulphuric acid, becomes soluble in water and forms the ichthyol-sulphuric acid. This then forms the basis for the various combinations, and when mixed with such bases as ammonium, sodium, lithium, or zinc we have the different salts produced. The rest, and by far the greatest portion of the pamphlet, is



taken up in describing a vast amount of minute experimental and clinical work performed for the purpose of determining the influence of different ichthyol salts upon the growth of the staphylococcus pyogenes aureus, the streptococcus pyogenes, and erysipelas. In addition to this, the salts were subjected to a clinical probation. Resulting from this the author declares that a broth containing one part of ichthyol ammonium in 4,000 will no longer allow the growth of staphylococcus germs; that ichthyol sodium, like the ichthyol ammonium, checks, in very weak solutions, every growth of streptococcus, and influences also the staphylococcus. Based upon the experimental work and clinical observation, the author also declares that ichthyol when early and energetically applied can, through the destruction of the streptococcus, shorten the attack as well as favorably influence the mortality. He also declares that since the introduction of sublimate as a disinfectant in surgical operations the ratio of the erysipelatous cases has been diminished. Furthermore he declares that the culture broths of streptococcus pyogenes and erysipelas can be rendered barren by dilute solutions and these germs quickly and thoroughly annihilated by stronger ones. The following rules are laid down for obtaining the best clinical results from this remedy:

1. Ichthyol is most effective when early applied in large and concentrated doses often repeated.

2. The application must be an extensive and intensive one.

3. It must be protected from without, in order that the skin absorbs as much as practical of this remedy. In the surgical treatment of erysipelas the mucous surface and the skin are cleansed with concentrated solution of salicylic acid, and the wound itself disinfected with sublimate solution 1-1,000 and covered with sublimate gauze. Then not only the reddened skin, but the healthy surface for a hand's breadth beyond, is rubbed after the nature of a gentle massage for ten or fifteen minutes with ichthyol ammonium pure or ichthyol ammonium lanolin (ã 2×1), the nature of the application being regulated largely by the amount of pain it creates. At the close of the application the

entire skin is thoroughly covered with the salve until it is of a dark brown color. Upon this is placed a layer of gauze moistened with salicylic solution and covered with a layer of non-absorbent cotton. In wounds about the head the hair is cut short and the entire head covered. In addition, ichthyol sodium is given internally in doses of  $1\frac{1}{2}$  grains repeated twenty or more times, according to directions. The patients retained their appetite and the fever sank gradually the next day. A few cases, however, were marked with an attendance of a critical depression.

**SURGERY AND EXACT SCIENCE.**—The late Prof. Syme was in the habit of expressing his opinion that surgery would never be an exact science, and that perfection was unattainable, because silly folks were always trying to invent new plans of treatment to replace the sadly few absolutely successful methods. One of his examples used to be the treatment of hydrocele by injections of iodine; and another the ligature of the superficial femoral for popliteal aneurism. His views receive curious confirmation, for in the Medical News, of Philadelphia, received November 29th, we find a paper on the alarming and fatal results following attempts at the radical cure of hydrocele, and in the British Medical Journal of same day a paragraph, by a young surgeon, advising ligature of the popliteal instead of ligature of the superficial femoral for popliteal aneurism.—*Edinburgh Medical Journal*.

**DR. BENJAMIN LEE**, secretary of the State Board of Health of Pennsylvania, has accepted the position of secretary of the Section on State Medicine of the American Medical Association. As the meeting takes place in Washington May 5th, it is important that all papers intended for this Section should be in his hands by the 5th of April. All members of the Association desiring to be enrolled in the Section are requested to forward him their names at 1532 Pine Street, Philadelphia.

It was reported from Odessa, February 2d, that a hospital at Skopin has been destroyed by fire, fourteen patients perishing in the flames.

**CHICAGO AS A PLACE FOR DOCTORS.**—The secretary of the Illinois State Board of Health, in his recently quarterly report, states that there has never been such a rush of medical men to Chicago as during the past three months. More than two thirds of the certificates issued were to physicians who wished to practice in Chicago, and never before in the same length of time have so many professional frauds attempted to obtain a foothold in Chicago. It is evident that the increase of population, and especially the coming World's Fair, are the attractions. Eleven applicants were refused licenses because they had diplomas from schools not in good standing, because their professional records had been tarnished elsewhere, or because they could not comply with the requirements of the Board. The anxiety to settle in Chicago is also manifest in the incorporation of so-called medical companies, medical associations, and dispensaries, thus taking advantage of the lax laws and attempting to evade the Medical Practice Act. New York, not having the World's Fair, will take pleasure in sending on her medical men that will not be missed here.—*New York Medical Record*.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following distinguished members of the medical profession abroad have been announced: M. Pécholier, *professeur agrégé* in the Montpellier Faculty of Medicine; Dr. Gori, *docent* in Military Surgery in the University of Amsterdam; Dr. Grimm, of Teplitz, in his seventy-ninth year; Dr. Lucca, of Marienbad, in his eighty-ninth year; Dr. Szokalski, formerly Professor of Ophthalmology in Warsaw; Dr. Santiago Lopez, Professor of Medical Pathology in Granada; and Dr. Borelli, Lecturer in the Medical School of Turin and Senator of the Kingdom of Italy.

**THE MARKS OF A POOR PHYSICIAN.**—Dr. Broadbent, in an address before the British Medical Association, says a mark of a weak medical man "is the indiscriminate use of stimulants in fevers, a ready resort to narcotics and sedatives, treatment directed to symptoms only, and a fondness for new drugs of high-sounding names." [Amen.]

**ANOTHER REMEDY FOR PERSPIRING FEET.**—The Medical Press says that Dr. Winogradoff recommends a 5 to 8 percent solution of chloride of zinc as an application for the prevention of undue perspiration of the feet. He begins by ordering the foot to be well washed in tepid water, and then dabs on the solution, wiping off the surplus a few minutes later. The application is best made at night, and may require to be repeated a week later. It acts as a caustic, destroying the sudoriferous glands, and should never be used except by the medical man himself.

WORD is received from Nicaragua that a new disease has appeared there and has caused several deaths. The victims are seized with severe pains in the stomach. The pain is followed by dysentery, and if prompt measures are not taken the sufferer dies within four hours. Dr. Espenosa, of that place, considers the disease a precursor of cholera.

**PEPTONURIA AFTER KOCH'S INJECTIONS.**—According to a communication made by Prof. Kochler at the last meeting of the Vienna Society of Physicians, the toxic effect of Koch's lymph is marked in some cases by the presence of peptones in the urine of the patients who have been injected. In 33 out of 200 cases the presence of peptones could be tested; also in 2 cases of non-tuberculous patients who had been injected for control, peptonuria occurred after the injection, though no reaction could be observed.—*New York Medical Record*.

**A DISPENSARY** for the treatment of the diseases of women amenable to electricity has been opened at 1632 Cherry Street, Philadelphia, under the charge of Dr. G. Betten Massey and Dr. Horatio R. Bigelow. Physicians are invited to bring or to send suitable cases on Mondays, Wednesdays, or Fridays at 3 p. m.

**A NEW POISON IN CHEESE.**—Dr. Victor C. Vaughan has detected a new poisonous element in cheese, differing from tyrotoxicoin, but has so far been unable to isolate it. Taken in sufficient quantities it produces vomiting and purging, and in animals death.



# THE AMERICAN PRACTITIONER AND NEWS

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### A VALEDICTORY ADDRESS

Delivered to the Graduating Class of the Medical Department of the University of Louisville. Class of 1891.

BY E. R. PALMER, M. D.

*Professor of Physiology and Pathological Histology.*

I was sitting by my window one afternoon during the recent holidays vaguely revolving the yet unconstructed matter of this address, when my reverie was suddenly interrupted by the explosion of a package of fire-crackers that some school-boy, in the exuberance of noise-loving youth, had set fire to on the walk below. I waited somewhat impatiently for the end, and just as I drew a long breath of satisfaction at the stopping of the discordant racket one poor belated squib exploded, and all was really over but the smoke and the smell, and I said to myself, An epitome! Here it all is in swiftly passing scene, a winter's fusilade of lectures, demonstrations, and quizzes, with malodorous fumes from the chemists' laboratories true to life thrown in—the end, and yet not the end, the belated squib, the parting shot, the valedictory.

To you, young gentlemen, this eager moment is one of countless hopes and expectations. The heavens bear no clouds. The air is full of sweet perfume and soul-inspiring music. Hope clothes with swelling bud and fragrant blossom the tree tops that to less impassioned minds are but bare and rugged branches. We catch the infection from your glowing eyes and feel again in our hearts the familiar thrill of youth's bygone happy days. We appreciate how eager you are

for the beginning, and know full well that the simplest phrases of well-wishing and good-bye from us now would amply suffice to fill to overflowing the sparkling measures of your present happiness. To us, however, in our russet days, when reflection and retrospect somewhat curb the rhythm of the hour, your joyous commencement of life is an occasion not to be overlooked for speaking words of counsel as well as words of cheer. To this pleasant yet thoughtful task I shall address myself, in the hope, which I trust is not a vain one, that in your after-lives something I may to-day have said, some thought now uttered, shall bear fruit for the well-being of mankind.

The ripening days of the nineteenth century are burdened with grave social foreshadowings that in many of their bearings demand of our profession the most careful consideration. To attempt a full analysis of these various questions now would be to overstep the bounds of both fitness and time. With your permission, however, I propose to discuss from a professional standpoint a few facts, that I hope will interest and instruct you, bearing upon the question of the future of the human race.

Man, says the biologist, is an aggregation of inherited traits, physical, mental, and moral, that, whether for good or for evil, not only positively influence his own life and character, but foreshadow the future of his descendants through ages yet unborn. All states of society have felt and shall yet feel this irresistible influence, and individuals or peoples are what they are to-day as they were what they were in the past, more in obedience to the power of heredity than any other one factor in human development known to man. To one impressed with the truth of this assertion and the immense possibilities it indicates, it seems somewhat strange that through the known ages up to the

present so little that is of a permanent nature has been accomplished in the matter of human development, of human ennoblement. The history of all ages prior to our own has been that of advance and retrogression; so that to-day, instead of the world being peopled, through the laws of natural and rational selection, with races of physical and intellectual giants, we find man very much as he has been in the past—a compound of good and evil, now philosophical and again superstitious, swayed to-day by the noblest traits and debased to-morrow by the grossest passions—at best but a crudity, judged by ideal types.

Surely it is strange, with almost all else in animated nature developing into higher or more useful forms in obedience to this law and under human influences, that man himself should have revolved in circles that show scarce any perceptible widening throughout the ages. What is the explanation? Galton in his work on Hereditary Genius, Draper in his Intellectual Europe, and Hammerling in his historical story of Aspasia, each in his way portrays with graphic pen the justly styled "halcyon days of Greece." If we may believe the statement of the first named of these writers, man has not yet regained the marvelous intellectual supremacy whose decadence culminated in the fall of Athens. The golden age of learning, the age when the Muses dwelt among men and taught to the humblest their soul-refining arts, was as well, if we read history aright, an age of widespread human happiness. What has become of its people? What causes led to their annihilation? The answer is told in the simple story of the domestic life of Pericles; how, bound by the holiest ties to Telesippe, who bore him two sons, he put her from him for the beautiful and brilliant Aspasia, who, braving the usages of the times, had dared to mingle with the Athenian throng and measure her wit and learning with that of its rulers. Telesippe, it is true, had her faults. Her hair was often unkempt, her home at times untidy, and in her fondness for her domestic pets it is doubtless true, as stated, that she insisted on having the pig-sty beneath the parlor window; but against her character as a faithful wife or devoted mother history has nowhere recorded the faintest sus-

picion. It may hardly be said of Pericles that his divorce of Telesippe and after-life with Aspasia were countenanced as the exceptional license of a great man. It is not shown that his course caused much social commotion among Athenians of rank. The time was ripe in the social evolution of the age. Revolt against the restraints and duties of the married state, with lax laws regarding this custom; the quest of fleeting pleasure in the unstinted gratification of every pleasure-giving passion, love of self and of self only, became the governing impulses of the hour, and with their supremacy the Greek of sculpture, of music, and of literature paid the penalty of his epicureanism and passed to history, while, as Draper tells us, the barbarian hordes that thronged the Athenian shores to profit in purse by the prodigality of the age soon possessed the land, and through their numerous progeny became ancestral to the Greek of modern times.

The story of the ancient Greek is the story with but unimportant modifications of other races as well, once great and powerful, but now practically extinct.

I should hardly tax your patience with the recital of such familiar history, were it not that in the moral which we may draw from it there possibly lies a lesson not wholly inapplicable to the age in which we are the actors. To some thoughtful minds, what the paganism of the Olympads permitted, the Puritanism of the seventeenth century seems in its destiny, though under somewhat modifying circumstances, powerless to prevent. Let me explain. Within comparatively a few months we have seen an attempt, so far fraught with but questionable success, looking to the organization in the United States of a society called The Sons of the Revolution, a laudable effort on the part of a few thoughtful men to preserve the identity of a once powerful and hardy but now scattered and dying people.

Still more recently one of the most thoughtful of our national politicians has stated, as an explanation of marked changes in the political complexion of New England, that these changes were due to the fact that so many of the native-born young men of that section had emigrated to the great South and



West. Without challenging the partial explanation that this statement bears, the observant sociologist can not fail to detect other and more fatal causes steadily at work that point to changes of a radical nature in the social complexion of the historic land of the Pilgrim Fathers. There are in New England to-day 150,000 marriageable unmarried women. Of these, 80,000 are in Massachusetts alone. Is it possible that the South and West can show the influx of half as many marriageable unmarried New England men of corresponding ages, or that the disproportion of sex in New England is as great as would at first seem? I doubt it. We must look elsewhere for the truth.

Turn to these women themselves and you will find to no inconsiderable extent the explanation of this remarkable state of affairs. Observe them in their daily life. They are not the thin-visaged, blue-spectacled, pedantic spinsters of story, spinsters because they can not help but be. By no means. Almost athletic in build, with clear eyes, a healthful glow upon their cheeks, tasty, nay, often styli-h in dress and aggressive of manner, there are a thousand such who, in the evolution of nineteenth century society, have discovered the fascinating charms of independence, and who, chafing at the mere thought of the duties, the cares, the trials of motherhood, or disdaining the (to their minds) subjugation of wifehood, cling to a single life and that full freedom to love self only which such a life bestows. Their quick step is heard everywhere, not alone in New England, which through Mr. Depew's statement furnished me my theme, but here, and more or less in every quarter of this country. Their usefulness in commerce, the professions, and the arts is undeniable. From the humblest pounder of a type-writer to the brainiest propounder of philosophy they challenge our admiration, nay, more, they challenge our test of strength in the struggle for self-preservation. They do much, but they do not assure the perpetuity of their ancestral type, but let it rather follow the buffalo of the prairies and the auk of the promontories to inevitable extinction. Let us then place where it belongs, at woman's door, her share in this condition of affairs rather than to libelously picture the vast army of self-reliant

unmarried American womanhood as of one mind and heart, decked in somber garb and bedewed with tears, sitting all day long by the window, wearily sighing "He cometh not."

The blame for decrease in the population of the higher classes is, however, far from being confined to woman alone. All that art, all that wealth, all that concert of action can accomplish is being taxed to-day more than ever in developing substitutes for home-life and opportunities for selfish ease for bachelors. Look in upon the club life of to-day. No longer in the great cities only, but springing up and flourishing in the lesser towns, they are everywhere thronged by young men who find there luxurious opportunity to nurse the idle fancies of bachelorhood. Nor should we lay the blame too much at the door of the club, lest we attack the issue in its effect rather than in its cause. To find it truly, it must be sought in the temper of the young man himself, who philosophizes about matrimony as his seniors would about a commercial transaction, counts the cost, not alone in cash, but largely as well in self-sacrifice, and ends by deciding to wait until he is able to support a wife in style, and then look over the market, quite confident that his gain of gold shall offset his loss of youthful health and vigor. Shall we blame that womanhood that declines to sit waiting his pleasure in the market-place? Nay, let us rather hope that the manhood of our forefathers shall reassert itself in the sons, to worthily win her back, keeping her won to the divinest path e'er trod by human feet. DeMaupassant makes one of his characters, an aged bachelor poet, speak as follows to a vigorous youth at his side:

"Marry, my friend; you do not know what it is to live alone at my age. Solitude to-day fills me with a horrible anguish; solitude at home, near the fire, in the evening. It seems to me that I am alone on earth, fearfully alone, but encompassed by strange dangers of unknown and terrible things; and the partition which separates me from my neighbor, whom I do not know, places him far from me, as far as the stars seen from my windows. A sort of fever pervades me, a fever of pain and of fear, and the silence of the walls frighten me. It is so deep and sad, the silence of the room where

one lives alone. It is not only a silence around the body, but a silence even of the soul, and, when the furniture creaks, one trembles to the bottom of his heart, for no breath is expected in that mournful lodging. When one is aged, children are a blessing."

I am often asked if as a physiologist I favor early marriages. I most assuredly do, with courtship not too long before marriage but life-long afterward, and with troops of children, too. Whatever may be said of the failure side of marriage, and that is the side that most generally has its say, the single life when old age comes, old age that should be mellow and full of happy solace, with children and grandchildren to love and honor it, the single life in such an hour has but one dreary side. To further draw aside that curtain now would be to let in draughts whose chill would blast those fragrant blossoms with which by woman's hands your commencement honors have in this happy hour been bedecked. Home, children, with all their cares and responsibilities, are best of all calculated to develop in man the virtues of unselfishness and forbearance, without which can scarce be attained the full measure of human greatness. Believe me, young gentlemen, as one who has struggled against all the obstacles you may have to encounter, and as one speaking not alone of his personal experience but through observations of no mean or narrow range, if life is worth living, you will find it in a home and by a fireside of your own, where all the petty sorrows and all the passing joys are shared and cherished in the sacred privacy of your own little circle.

What I have said as regards the growing tendency in the higher classes toward celibacy is if possible more than equaled in its bearing on the future of the human race by the marked decrease in our times in the proportionate number of children among the married. In France so important has this fact become, that the question of national legislation bearing upon the subject is being seriously considered by the government. I quote from a recent editorial in the *Medical Record*: "In 1888 there were (in France) 882,639 births and 794,933 deaths. The ratio of births has fallen from 30 per 1,000 in the early years of the century to 23

per 1,000. The number of marriages has fallen to 7.1 per 1,000, and the number of births to each family has fallen to three. Divorces are increasing in frequency, especially among the educated classes, while the tendency is for marriages to take place later in life. The death-rate alone makes a more favorable showing, it being less than in previous years." In concluding the article the editor says: "There is hardly a single factor mentioned by Lequeux as a cause of the low birth-rate of France which does not exist in other European countries whose birth-rate is a normal one." Elsewhere in this same journal is this simple statement, full of meaning and bearing directly upon our interest as a people in the subject: "A recent census of Fifth Avenue, New York, showed an average of about half a child to a family." A critical analysis of this state of affairs would hardly be in place here, but I can not refrain from the suggestion that one of the remedies proposed in France, namely, a revival of the law taxing old bachelors and childless married people should be modified by the addition of a clause, with possibly a carefully restricted exemption paragraph, including old maids as well. The danger that threatens is the old foe that subjugated Greece, national sterility. The need of the world to-day is for heart life rather than for head life. The cry of the age is for homes and children, rather than for clubs for selfish maids and bachelors. New England should add to the stately columns that adorn her classic hillsides another shaft of spotless stone, loftiest of them all, and inscribed with the simple but suggestive words, TO JOHN ALDEN AND PRISCILLA.

The causes that lead to the oftentimes failure of success in the life that follows marriage are a difficult subject to handle. Certain it is that our present methods looking to its consummation only too often result in final disaster. As an abstract proposition it is certainly conceivable that under proper and possible human influences the union of two reasonably healthy people for life should at least yield an average, in a majority of cases, to each person of a life's sum of happiness far outweighing the sum total of its miseries. If the problem is ever solved, it must be by physiological process and



through a wise application of the laws of that science as studied and taught by our profession. The present basis of action in a vast majority of instances looking to and bringing about marriage is also beyond question not one that will ever lead to the evolution of higher forms or a state of universal happiness:

"Love is a passion by no rules confined,  
The first great mover of the human mind,  
Spring of our fate, it lifts the climbing will,  
Or sinks the softened soul in seas of ill."

The union of man and woman solely in obedience to the blind dictates of human passion is largely responsible in its ultimate workings for the recurring extinctions of higher types. Viewed from the most favorable standpoint we may select, the outlook is any thing but alluring. What a paradox! What a sad homily on the vaunted superiority of human reason, if man is to go on throughout coming ages, as in the past, ever rejecting his opportunity, his right, to great and permanent development, until at last in the changing climate and soil of the earth's old age his fossil remains shall mingle with those of the pterodactyl, his last recorded achievements neither better nor worse than those that have been accomplished throughout the cycles of ages past and gone. Let us hope that the future may not fulfill its promise, but rather that human happiness and human ennoblement may finally grow steadily apace in the swinging of the ages until man, no longer as a rule a disorderly mixture of possibilities with a monotonous record of failures, shall rise triumphant to the full measure of human grandeur, still struggling that he may distill from life its sweets, still sorrowing that the larger measure of human happiness may be his, but crowned with a broader, a fuller, a nobler manhood, with self ever subservient to the good of others, serene in a rational and so imperishable love of home, of family, and of country.

Let us change the subject to one more personal and more pleasing. Success in life, and true success as I have already indicated means happiness, is nowhere more dependent upon a happy married state than in that life you are now entering, and to my mind the highest mis-

sion of the wife, because so hard to fill, so calculated to try the temper of her steel, is that of the doctor's wife. Who shall paint her picture, the ideal doctor's wife? History apostrophizes the beauty of a Recamier and the wit of a De-Stael, but nowhere has the sublime womanhood of this noble type found fitting tribute from the pen of man. Her stout heart under circumstances that try her as others are rarely tried, her sympathy, her discreteness, her judgment, her love, "knit up the raveled sleeve of care," and smooth out the wrinkles of ageing worry with each recurring day. In the early struggle of her husband's life it is more than all else her wise counsels and words of encouragement that sustain, and when the day of triumph comes, "like perfect music set to noble words," she rounds up the full measure of his greatness, happy in his success and content that the world shall applaud him only for its achieving. That you may each early win this best of human blessings is our fondest wish to-day.

The world is swayed by all sorts of popular traditions, true and false. A common one is that a regular life, an early-to-bed and early-to-rise mode of existence, with corresponding regularity in one's other habits, is uniformly conducive to health and longevity. Viewed from this aspect the doctor's should prove a very unhealthy calling, about its only regularity being its irregularity. I fancy the dogma of regularity in living as a sure guarantee of long life and health is fast being too thoroughly exploded to call for much argument here. In spite of wisely formulated rules of diet and modes of living, the most orthodox in their regularity often age and die comparatively early, while others who scoff at sanitation, or neglect it through ignorance or lack of means, frequently spin out the thread of their days far beyond the so-called allotted life of man. The venerable darkey rounding up a hundred years in his squalid cabin, the grizzled, dissolute tramp, the shriveled, rheumatic beggar, and no less the man in higher walks whose habits of eating, sleeping, and drinking are far indeed from the rules of sanitary orthodoxy, are ready examples that prove neither the short-sightedness of regular modes of life nor the efficacy of irregular methods—that indeed prove nothing

except the existence of a higher law, of a more potent factor in long living, namely, heredity. Surrounding the buildings of one of the recently erected private charities of this city is a row of young shade trees, planted alternately a Lombardy poplar and a Norway maple. The world is peopled with the poplars and maples of humanity; some as the one, beautiful and full of apparent but short-lived vigor, and others who add to the charm of personal grace and capacity the boon of longevity. Who has has not seen some hardy giant of the rugged and infertile mountainside, more than half its roots exposed to the bleak storms of succeeding winters and the scorching suns of passing summers, its body flecked with lichens and green with mosses, or its branches sustaining great clusters of mistletoe, bearing thus uncomplainingly through the centuries the burdens of others, and in its own life successfully defying the elements that continually war upon it. A blessed gift is it indeed to him who holds it in his warp and woof, the tough fiber of a hardy ancestry. In individual life almost everywhere it is the law of survival of the fittest that is being carried out, and, all things being equal, there is in the irregularity of a doctor's life, as in the irregularities of the nascent springtide, a virtue that, while it may nip untimely in the bud the delicate shoot, clothes the more enduring forms with the rich fullness and breadth that such a life can best develop. It was Beecher who said that "great men are rarely born except in countries that require cellars." There nature in her own irregularities puts man to the test of battle. Yours is to be a vanguard post. Where the fight is hottest your saddlebags with potent charges charged shall ever be found. When you cramp your weary limbs on a bed of kitchen chairs in the long night watches, when you face the driving storm, when you trace in dreary solitude the spiritless windings of some nameless creek, or swelter in the saddle beneath the rays of a torrid sun, do not repine and bewail the day you joined our noble army, but bless rather the Fates that saved you from counting other people's money all day long in a bank, and going to bed for good every night at nine o'clock. As you shake the raindrops from your dripping hat or

scrape the yellow soil from off your unpolished boots, at least be thankful that it is no worse, consoling yourselves with those familiar lines in *Childe Harold*:

"O! there is sweetness in the situation air—  
And life that blunderers may never hope to share."

For some of you a better future awaits. A successful city practice with possible wealth and certain honor is, notwithstanding its trials and hardships, a more pleasing picture to contemplate:

"Be! At the learned doors of theory,  
Varied in all knowledge of those schools that sway  
The modern mind in learning's or world's way,  
The *Utopians* lounge in hisop, balm,  
Thro' which he promptly speaks to those who call  
From towns a hundred miles and more away,  
Prescribing pills and potions for the day,  
And discussing distant bones with oomp,  
By wheezings heard on talpous hoofs—  
Use the *Utopians* of *Utopia*,  
Wet the streets with streaks of green-groose told be-  
tween;"

These are the doctor's words in full direction,  
Then hangs the banner to cut off *Utopian*;  
And turning to his dining table, he says,  
"That *Utopian* all right; they'll grow his throat and  
head!"

Then come pressing round the door his *Utopians*—  
God bless the inventors of *Utopians* and sleep!"

Among the many pleasures peculiar to the doctor's lot is one that is not often enough or fully enough emphasized from the pleasure standpoint. The humanitarian virtues that ennoble the doctor's life have been worn threadbare as a valedictory theme. The pleasure I refer to is one that comes from a full cultivation and practice of the art of discretion. To some women and many men gossip, newsbearing, is a passion. Equally so, and much more in your line of duty, will you find rare and increasing pleasure in the cultivation and application of the "science of silence" in the many confidential matters that must come to your knowledge. Cultivate it first as a duty, later it will become a delight.

"Put money in thy purse" is good advice to all young men. It seems almost idle to quote it here. We are often asked why doctors so rarely get rich. This is no easy question to



answer, so many factors are constantly at work in frustration. The parable of the Prodigal Son rightly interpreted in part explains the matter. To my notion this story has never been fully told. Whether or not the wealthy sire bought up the press and suppressed a part of the facts I am not prepared to say. It seems, however, that when the priggish brother rebelled at the intended killing of the prize calf, it was not because that was the only calf they had. Indeed, as I understand it, his remonstrance was rather as follows: "Why kill that particular calf? There is another one in the barn. True, it is a sickly weanling, but it's good enough for such as he." And the good old man, inspired with that rare diplomacy that only the rich enjoy, replied: "My son, I admire the wisdom of thy youth, but question not thy father's larger judgment. Thy brother is grievously ill, and will sorely need much wise consideration. I am saving that calf to pay the doctor with." The payment of doctors' fees grudgingly, or not at all, is a blight only too common in all quarters. The cause of this lies more at the door of the profession than is usually credited. The father who teaches his son a bad habit, and then tries to whip it out of him, is no worse than the profession is that, having taught the laity its unbusiness-like methods in dealing with the question of medical fees, grumbles at the result. Let the customs be what they may in the community you may select for a professional home, if you would succeed substantially, charge well and collect promptly, never forgetting as you pocket your fee to put a bit away for a rainy day. But a truce to all this. The theme is too prolific. I must close.

I would we were at this moment back again in the familiar halls of the old University building, away from the glare of this electric day, away from the blaring music and this great throng of people with all its chivalry and with all its loveliness—back there midst those familiar scenes you have now left forever, back there where in the grasp of human hands and the glisten of human eyes should be mutely spoken a more eloquent farewell than tongue can fashion or lips utter. Good-bye; be brave, be true. Hew to the line. Balance your men-

tal accounts each night. It was not so much the little rift as the larger seam of neglect that made mute the tuneful lute. Think, when you falter, of the countless number gone before who have striven and won, and so take heart. Aim at the stars. The prize is worth the struggle a thousand-fold. Achieve success at every honorable cost, that so winning you shall enjoy that largeness of life that belongs to the grandest profession the brain of man has ever conceived or the hand of man put into execution. Farewell.

### THE PHYSICIAN OF OUR DAY.\*

BY J. H. BUSCHMEYER, M. D.

The age in which we live is a progressive one; everything is being improved; the sciences have been developed to a degree bordering on exactness. The arcana of nature have been explored, and the results are of immense value to mankind.

The science of medicine has kept pace with the other sciences.

In the beginning of this century many things well understood to-day were but unproved hypotheses. The achievements in medicine during the past ninety years have been wonderful, and the remaining ten years will doubtless add its tithe to complete a century of unparalleled achievement.

The ancient fathers established principles and so laid the foundations of medicine that they will remain unshaken till the end of time. Galen's thinking led to the demonstrations which showed the arteries to contain blood, in A. D. 165.

The sixteenth century contained many men who devoted much time to the study of the circulation of the various fluids of the body. But it remained for a man of the seventeenth century to prove the circulation of the blood. In this century, too, the cell doctrine became a fact by the discovery of the red blood corpuscles, in 1673. Hewson, nearly a century later, found the leucocyte in the same running tissue. Further, in 1832, Schleiden proved that vegetable tissue is made of little masses to

\* The class valedictory delivered at the fifty-fourth Annual Commencement of the Medical Department of the University of Louisville, 1891.

which he gave the name cell, and later, in 1838, Schwann discovered that even solid animal tissue is composed of an aggregation of little protoplasmic masses which he also termed cells.

These discoveries form the ground-work on which modern physiology is based, and crystallized the strata on which the modern pathological superstructure is built.

Surgery in the eighteenth century had its Hunter, whose findings in the economy of man and animals were not only marvelous in their day, but will command the wonder and admiration of the savants of all time. The great Hunter had a student, Edward Jenner, who proved to be the greatest benefactor of the human race. By his discovery of vaccination in 1796 he conferred on mankind immunity of smallpox, the most terrible of epidemic scourges.

Our own McDowell, the father of ovariectomy, had faith and courage to open the abdominal cavity and give to surgery new fields for conquest. Later came anesthetics, which revolutionized all surgical operations. What was impossible before on account of the torture of the knife, now became painless and easy.

Following the triumph of anesthesia came the era of asepsis in surgical procedures, and established the fact that sepsis and germs, dirt and disease are synonymous terms, so far as surgery is concerned. The apostle in this department is Sir Joseph Lister, who, through evil and good report and many discouraging circumstances, has lived to see the triumph of his doctrine in the wonderful achievements of aseptic surgery.

The seventh decade of this century witnessed the discovery of the bacillus of malaria—a triumph for bacteriology and germicidal medicine, since it gave us a rational explanation of the before inexplicable efficacy of quinia in intermittent and kindred fevers.

Then followed in rapid succession the brilliant discoveries of Pasteur and Robert Koch, which threw a flood of light into the darkness surrounding the etiology of anthrax, septice-mia, tuberculosis, rabies, and cholera, and placed pathogenic bacteriology upon a foundation which can never be shaken. The excitement awakened by these wonderful rev-

elations had not subsided when a specific for tuberculosis was announced—a discovery that promises to cure by simple means the most fatal of all diseases, and to revolutionize the science of therapeutics.

If time shall prove the "lymph" to be the boon to suffering humanity its discoverer believes it to be, the name of Kuch shall go down the ages in rank that may well question the supremacy of Jenner's.

The remaining portion of this century augurs well for the beginning of the next, and it behooves us whose best work must be done in it to join in the ranks of the persevering investigators and to do our part toward finding out the causes of and remedies for diseases which at this time are unknown. By making man and his diseases the study of our lives, we shall act well our rôle on the stage of life so long as our Creator chooses to let us remain here to work out our salvation.

Fellow graduates, there are two special reasons why we should be very happy to-day. One is, a chance for a reaction after a most rigid examination; the other is, that we find ourselves among our friends, who truly wish us to become successful men. We all have thought and planned and worked to become graduates of one of the leading institutions of the land. Some of us have struggled harder than others, and many of us have, under numerous difficulties, at last reached the goal; but the more adverse the circumstances have been, the greater is and will be the appreciation of our education. We are happy, and rejoice at being graduates of the Medical Department of the University of Louisville, yet how many men are wrecked in career by realizing so great an expectation. Feeling that the height of their ambition is now attained, they have given themselves up to either indulgence or slothfulness.

To-day we commence a new page in the book of our lives. Some have filled more pages than others, while others have more pages to fill. We know that every man, especially the man of aspiration and energy, as he grows old sighs for lost opportunities.

We may not succeed in reducing regrets, but we can reduce their force, for we know that conscientious application is success, and that



the life most fraught with happiness is that which endeavors to make others happy, whose genius is character and application, and whose guiding star is God.

A man can not be termed truly successful who has lost his character. Character makes the man a man, and makes the difference between men.

Washington is superior to Napoleon, not in conquest, but in character, for character is greater than achievements.

What Patrick Henry accomplished by his eloquence, Benjamin Franklin accomplished by his magnetic force of character, for what is lost in art and talent is gained by character, and what is gained by deceit in any pursuit is lost in character.

May each one of us desire to be men in the true sense of the word. That dignity we can only attain by cultivating decided views of right and wrong; not regarding every thing as morally right which is pecuniarily or intellectually profitable, nor any thing as morally right which robs us of honor and manliness. Having established our calling, let us resolve to thoroughly fulfill its highest aims and noblest purposes by the best and truest methods.

The men who have moved the world have not been, as a rule, the gifted, nor those whose departure in life seemed to forecast any thing brilliant or remarkable. The greatest lights tell us themselves that their works are the results of assiduous labor of years of study and experimenting. They had the courage of their convictions, and believed that nothing is denied to well-directed labor; for nature is taciturn, and one must wrench her secrets from her. Application combined with character not only makes opportunities, but prepares us for them when they otherwise do come.

Gen. Meade was awakened at the dead of night to assume the command of the Army of the Potomac. He gathered together the fragments, and out of chaos made a compact, orderly army, placed it in fighting array at Gettysburg, and fought with it one of the greatest battles on record. He carried this army in four days from deep humiliation and defeat to crowning victory. He having turned the tide, it is said of him "that he was equal

to the occasion." And that is what we, as physicians, want to be, men equal to the occasion; but it is previous preparation and not momentary effort that makes a man capable and competent for the emergency. It is much better to never have an opportunity than to have one and leave it unimproved.

Byron says: "They never die who die in a great cause," and it may be added that "they never fail who live in the energetic and persevering pursuit of whatever is good and useful for mankind."

Character requires for its stability and life needs for its happiness a definite aim, energetically and regularly pursued.

Man, even on realizing his highest aspirations and attaining his highest possibilities, is like a bird beating against his cage. There must be something beyond man in this world; it is God. With God, morality and energy become the crowning elements of victory in all vocations of life. Let each so live that, though the actions of his life be scanned with all the industrious malice of a foe, nothing shall reward the search but deeds of honor.

LOUISVILLE.

## Reviews and Bibliography.

**A Practical Treatise on Fractures and Dislocations.** BY FRANK HASTINGS HAMILTON, A. B., A. M., M. D., LL. D., late Professor of Surgery in Bellevue Hospital Medical College and Surgeon to Bellevue Hospital, New York; author of a Treatise on Military Surgery and Hygiene, a Treatise on the Practice of Surgery, etc. Eighth edition, revised and edited by STEPHEN SMITH, A. M., M. D., Professor of Clinical Surgery in the University of New York, and Surgeon to Bellevue and St. Elizabeth hospitals, New York. Illustrated with five hundred and seven wood-cuts. 848 pp. Philadelphia: Lea Brothers & Co. 1891.

Of the many brilliant men the country has lost in recent years, who left us all too soon, perhaps no name among them has left a void so difficult to fill as that of Frank Hastings Hamilton. There seemed to be an atmosphere of genialty, of candor and truthfulness about him that commended him to the kindest regards of the entire medical public. He had a peculiar and exquisite genius for his work and a

vivid power of description that made the dull subject charming whenever he chose to give it consideration. One work he produced that at once assumed a marked pre-eminence, his treatise on fractures and dislocations. It was not only his crowning effort in the way of authorship, but it was the *chef d'œuvre* of all languages in its particular department. But science is moving so rapidly, surgical progress has already been so great that it began to look as if this favorite volume, so accurate in every detail, so clear, concise, and comprehensive, would have to be relegated to the cabinet of back numbers. The work, however, has been taken up by a pupil worthy of the master, and supplemented with whatever is of value that has come to light since the author laid down his pen. And now we have Hamilton and Stephen Smith's, which it is confidently believed can be driven from its position only by further startling advances in surgical art and science. As was to be expected, the most extensive and valuable contributions of the editor relate to the application of antiseptic precautions in the treatment of compound fractures, especially of gunshot fractures. Here he believes that rigidly applied antiseptic methods will practically reduce compound to simple fractures.

D. T. S.

## Correspondence.

### OUR LETTER FROM GERMANY.

It is safe to say that never in the history of medicine has the literature of any one subject accumulated so rapidly as has that of Koch's treatment for tuberculosis. Since November 13th, the date of Koch's first publication, one hundred and fifty pages of the *Deutsche Medicinische Wochenschrift* have been devoted to its discussion. The *Berliner Klinische Wochenschrift* has contained somewhat less. At the same time all the other medical journals, especially in Germany and Austria, have been more or less filled with the same matter. It is impossible to keep abreast of this great flood of articles, but in so far as the *Deutsche Medicinische Wochenschrift*, which is probably the most important of the German journals, indicates

the general finding and opinion, the following can be said:

Most of the writers of the various articles up to the present time report they have proved by their own trials the correctness of Prof. Koch's guarded statements made in his first publication of November 13th. That is to say, without being able to give final results, nearly all report the prompt appearance in tuberculous patients after injection of the general and local reactions, with very great improvement in some cases, indeed apparent cures, and in the large majority a greater or less degree of improvement. There have been as yet only two or three cases reported of death attributable directly to the injections. One occurred in Innsbruck, being a case of lupus in a young woman who appeared otherwise well and strong. Following an injection of a few milligrams a high fever occurred, delirium, and on the third day, with persistence of the symptoms, death. *Post-mortem* showed meningeal tubercles in addition to the lupus process.

In the *Wochenschrift* of the 15th of January is an article from Prof. Virchow, who seems to be inclined to very great caution in giving assent to the possibility of favorable results from the treatment in cases of phthisis at least. The following is extracted from his article: "Up to the end of the year twenty-one *post-mortem* examinations had been made of patients who had been treated with the Koch injection. Of this number sixteen were phthisis, one empyema (that probably would have gone to ground without the injection, he adds), one bone and joint tuberculosis, one phthisis combined with pancreatic carcinoma, one pernicious anemia with small old changes in the lungs and tuberculous pleuritis, and one of arachnitis tuberculosa." This last was a boy of two and three fourths years, who received four injections the last sixteen hours before death, and in all two milligrams. The hyperemia was so gigantic in this case, both in the pia mater and in the brain substance itself, that Virchow remarks: "I do not remember in my experience to have seen any thing like it." He personally examined the tubercles, but was unable to find any evidence of a retrogressive process in them. They were well constituted and in the condition in



which they are ordinarily found. Further, such acute hyperemia and swelling occur also in other and minor organs. One man of thirty years, with cavities in the lungs, rectal fistula, and a great number of intestinal ulcers, died from hemoptysis into an old ulcerating cavity in the lung. In another, a man of thirty-three years, before injection only induration of the right lung apex was found. Injections were discontinued after the sixth on account of continued fever and infiltration of the lower lobe of the right lung. The *post-mortem* showed the right lung to be very large and with both under lobes in a state of caseous hepatization to such extent that almost none of the parenchyma was left free. Here, without doubt, the changes were the result of the injections. Five of the sixteen cases of phthisis showed fresh caseous hepatization in a greater or less degree. As the bacilli appear not to be destroyed by the action of the fluid, it is possible to explain the occurrence of caseous hepatization of a whole under lobe in the following way: After injection a breaking down of the tuberculous tissue occurs, and this material that is not coughed up can readily be aspirated and so give rise to the "*schluck pneumonia*," to use the German phrase. Prof. Virchow holds it as his duty to throw out these warnings in order to insure greater caution in cases where one is not sure that the strength and the habit are sufficient to throw out all the broken down material. The same process undoubtedly occurs in the lung and in the intestinal ulcers that is seen in lupus. In a specimen exhibited, the necrotic destruction reached already to the serous coat of the intestine, and had the patient lived a few days more a perforation would undoubtedly have occurred. This has already occurred in a case reported by Fraenkel.

Prof. Rumpf, in Marburg, as a result of two *post-mortems* after injections, found the same fresh caseous hepatization that Prof. Virchow describes, and he therefore makes about the same remarks about the necessity for caution.

Königshofer and Moschke, in Stuttgart, report four cases of corneal ulcer, phlyctena, in which subcutaneous injections with Koch's fluid were practiced with the beautiful result, after fourteen days, of complete healing in one case

and almost complete in the other three. They take this as a positive proof that this disease is another form of tuberculosis, which has been before conjectured, though not proved, in spite of a great amount of microscopical work.

Profs. Babes and Kalendro, in Bucharest, have applied the fluid to seven cases of lepra, and find that somewhat larger doses are required, but that then these patients respond by a general and a local reaction, the latter consisting in an erysipelatous appearing reddening with swelling of the diseased portions, followed by crust formations as in lupus. These observations were reported after about two weeks' trial. In this connection it is to be remarked that the fire of general interest has been so hot that most of the observations have jumped out of the pan only half done, and so are somewhat unsatisfactory.

Prof. Sonnenberg, in Berlin, carrying out the suggestion contained in Prof. Koch's first publication, has in four cases opened the thoracic cavity in order to drain directly cavities in the lung which could be accurately located. In three of these cases the cavities were in the apices. The operation was made by a partial resection of the first rib at its sternal end. This, together with the first intercostal space, afforded ample room. In all three of these cases the pleura was adherent as far down as the second rib at least, and so no trouble was experienced from pneumo-thorax. The cautery was used to penetrate the parenchyma of the lung. The cavities were readily opened, and after sixteen days the patients were doing very well. The scheme is to employ now the injections, which indeed have already been begun, the cast off tissue having an easy mode of egress through the artificial opening. Prof. Sonnenberg makes the following remarks: "In the so-called surgical forms of tuberculosis the injections of the Koch fluid are only to be used in connection with surgical measures. In this way we have already succeeded in curing some of our surgical patients. From my experience up to the present time I can lay down the rule that in surgical tuberculosis the surgeon will find more than ever occasion to use the knife, and only in this way are striking results to be obtained by the use of Koch's fluid."

Sir Joseph Lister, in a recent number of the *Lancet*, pays Koch and the Germans this compliment: "Through Dr. Koch's great kindness I had the opportunity of penetrating into the arcana of the Hygienic Institute in Berlin, and seeing most beautiful researches carried on, of which Koch is the inspiring genius. I saw things which, while they excited my admiration, made me also feel ashamed that we in this country from one cause or other are so greatly behind our German brethren."

The expiration of another week has produced further reports that have a tendency to cast some doubts about the beneficence of the Koch treatment. That the fluid has a decided effect on tuberculous patients none seem prepared to deny, but a good number are now coming out with reports that, as already said, cast very grave doubts around the beneficence of this effect. In Prof. Koch's article of January 15th, in which he communicates the nature of the fluid, he says: "Only in a very few exceptional cases is it contended that the remedy for too far advanced cases can be harmful, which will be readily admitted, but also that it favors the spread of the tuberculous process, and is so in itself harmful." But it must be said that the number so contending is constantly growing larger, as shown by the reports of the past week.

Prof. Virchow reports the *post-mortem* findings in a student of twenty five years, who was nine times injected, last time on December 25th. Death occurred on January 13th. There had been a quick perforation of the pleura with occurrence of pneumo-thorax following the use of the injections. When the patient first submitted himself for treatment there was found in the apex of the left lung a slight dullness, with bacilli in the sputum. More was not to be made out. Patient appeared a robust, strong young man; his parents were also well and strong. The first injection was made on November 30th, followed by temperature to 38.7° C. He was in all nine times injected, last time on December 25th. Highest temperature was 39.4° C., and greatest amount injected at one time was five milligrams. On 23d December a shortness of breath was complained of, accompanied by an increased pulse frequency. From day to day

now percussion showed an increasing dullness from above downward. Then the temperature rose suddenly to 40° C., and remained so until 9th January. Four days before death temperature fell rapidly, and physical examination disclosed the following (it is again to be remarked that in the beginning only a slight dullness was to be made out in the left lung apex): decided dullness in right apex behind and reaching to angle of scapula, and metallic tinkling; also dullness in lower lobes. From then on the difficulty in breathing increased, and there appeared evidence of a pneumo-thorax. On section found also pneumo-pyothorax.

He reports further the case of a man of fifty-four years, who in the past summer began to suffer from shortness of breath. He was admitted to hospital on October 10th on account of a right side pleuritis with exudate. Up to 26th November no injection was made, and there was reason to be satisfied with the condition. There was then no fever, and there had been no loss of weight. Five injections were made respectively on November 26th, December 1st, 10th, and 31st, and January 9th. Each time five milligrams was injected and was followed by a strong reaction, temperature going to 40° C. There was a reduction in weight, and after the last injection a continuous fever. *Post-mortem* examination on January 21st showed, in addition to indurations in both lung apices and the results of a pleuritis, an altogether unusually wide-spread miliary tuberculosis of the lungs, the spleen, the kidneys, and the liver.

Prof. Ewald, of the Augusta Hospital, in Berlin, has treated altogether 114 cases of phthisis. Of these, 41 have gone out of hospital, 5 dead, and 36 discharged. Of these five deaths, three occurred in old and severe cases, and in the other two he is compelled to say death appeared to be the result of the injections. One was a case of phthisis with amyloid degeneration of the kidneys, but the general condition was good. Injection of one milligram was made, followed by high fever, hemoptysis, and death the same day. The other was a man who had come from America to be treated. A careful physical examination disclosed nothing more than a slight infiltration of the right apex. After a number of injec-



tions, up to ten milligrams, attended with usual reaction, he found himself still feeling quite well, when he suddenly had an abundant hemoptysis. At this time a cavity was made out on the opposite, left side. On the next day there was a recurrence of hemorrhage, death following the same day. *Post-mortem* showed a fresh miliary tubercular eruption on the pleuræ; the pleuræ were covered with single and conglomerate tubercles that had a fresh appearance. Ewald here remarks: "I am not prepared to say, '*Post hoc, ergo propter hoc,*' but the case exhibited by Virchow strengthens the conjecture that the condition found was the result of the injections. Of the thirty-six cases discharged, seven were for various reasons, one because the idea of going happened to occur to her, one from dissatisfaction, the others because they learned from me that treatment was hopeless. Four of these were sure candidates for death, and I have already heard that two have since died. The remaining twenty-nine make themselves the report that more or less improvement has continued as regards cough, expectoration, night-sweats, and weight." But Ewald is compelled to say that through percussion he has been unable to find in these cases any changes of an important nature. Here one case of pleuritic exudation is excepted, in which following the injections the pleuritic exudation disappeared very quickly. "I think we clinicians are now placed in a position where we must speak out, and I must say that my conviction is that up to this time I have seen no case that I could pronounce cured." He looks upon the fluid as producing in some cases an unquestionable improvement, but the point of difficulty is to decide in just what cases this improvement will occur. Koch has stated the rule that the remedy is to be used in fresh cases only with the expectation of producing a cure; but as a cavity may exist unrecognized in the central portion of the lung, the rule is not an exact one; and we have seen that two at least of apparently mild cases and favorable for the use of the fluid have speedily died, apparently as a result of the injections. The physician is now placed in the position of the surgeon who must explain to the patient the hazard of an operation and allow the patient to take his

choice, but with this di-advantage, that the possibility, and in fresh and favorable cases a good one too, always exists that without adopting this dangerous method a cure or a standstill of the disease can be reached. In 1887, Fräntzel published results from treatment with creosote that would seem to have accomplished almost as much as this new treatment even when it succeeds.

Victor Liebman, in Trieste, has found tubercle bacilli in the blood of nine patients after they had received injections of the Koch fluid. Similar cases of tuberculosis without injections gave only negative results.

Here I will add what I have been able to see and hear in the clinics here in Bonne. In the surgical clinic there were two cases of tuberculosis of the wrist-joint that at first appeared to be improved; the pain was less, and the motion was more. But they have not continued to improve further, and in one there has occurred an additional formation of pus. Two more cases of tumor albus with resection of the knee-joint have done nicely since the operation, the parts apparently healing more rapidly than under ordinary circumstances. Prof. Trendelenburg, the director of the clinic, told me that these were all out of the hundred or more cases that could be said to be improved. One case more of bladder tuberculosis is to be added, in which the patient thought he was a good deal better. Prof. Trendelenburg consequently said that he had nothing favorable to say regarding the treatment of surgical tuberculosis. As yet he has not tried the combined method of operation with injection, except in the two cases mentioned, and so is not prepared to say that in that way much better results than by former methods are not to be obtained. But as regards injection alone, better results in the same length of time were certainly obtained from the use of iodoform and oil.

Prof. Schulze, director of the medical clinic, said also that he had nothing favorable to say. He has as yet seen no case that was to be pronounced cured; some had unquestionably improved, but that occurred also under modern plans of treatment without the injection of the Koch fluid. He was of the opinion that this improvement was no greater than would have

occurred under the methods usually employed. On the other hand, some patients had been rendered worse, and one or two deaths in more advanced cases had occurred, which were to be attributed to the injections. He deems it especially important to treat patients with laryngeal tuberculosis with extreme caution. One such case had become so rapidly worse that injections were promptly discontinued. He considers the diagnostic value of the fluid as also questionable, as some patients without tuberculosis show a comparatively strong reaction, and others with tuberculosis show none or almost none at all.

The cases of lupus by Prof. Dutrelepont appear as striking evidences of the specific action on this one form of tuberculosis at least. Since the 23d of November between twenty-five and thirty cases of lupus have been treated. Of this number five appear cured and have been discharged. The nodules have all disappeared, and only smooth, pinkish white scars remain; the patients fail to react, even from large doses, and so are looked upon as cured. They are, of course, to be kept in sight and submitted to the test of time as to whether relapses will occur or not. The other cases have been benefited according to the time they have been treated and the extent of the disease. As lupus was the first of the tuberculous diseases of man on which the Koch fluid was tried, so it seems likely to remain the one on which the beautiful result can be attained.

I also had a talk with Prof. Köster, the pathologist. He is the man whom Virchow has designated as "*der kleine kgl. am Rhein*" (the little yelper on the Rhine), because in a great many things Köster has always been the opponent of the views advanced by Virchow. At the same time Virchow is said to have a very wholesome respect for the little yelper. Virchow and Köster seem to be of one mind at last, at least as regards the effects of the injection of the Koch fluid. He told me that he had had as yet twelve cases of tuberculosis in which death had occurred after the employment of injections. In eight of these there were no changes to be found of an unusual or extraordinary nature. But in four cases there had occurred a widespread acute miliary tuberculosis of the lungs, in one case combined with

acute miliary tuberculosis of the liver and kidneys, and in one case with fresh tubercles in the trachea, the larynx remaining unaffected. He regards these acute onsets as the result of the destruction of the tuberculous tissue, and thereby the dissemination of the bacilli, with the result of acute infection in other parts of the lungs and in other organs. In Koch's first communication in November he stated that he regarded it as necessary, after having begun the injections and having so produced a destruction of the tuberculous tissue, to then protect the patient from further infection by a continued use of the fluid. In all of the cases of Prof. Köster, and indeed in those reported by Virchow too, the injections had been discontinued some days or one or two or more weeks before the occurrence of death. In response to my question if it would not probably have been better if the injections had been continued as Koch had suggested, he replied that to his mind it was all the same whether they were injected right along until they died or whether they were given a week or two of grace. In the case of knee resection by Prof. Trendelenburg he had found that in spite of the injections of some weeks the formation of fresh tubercles had gone quietly on.

As regards the diagnostic value of the fluid, the experiments of Dr. Peiper, in Greifswald, published in the *Deutsche Medicinische Wochenschrift* of January 22d, are of interest. He made injections on twenty-two patients suffering with various diseases, but not with tuberculosis, with the following results:

Of 19 patients who received an injection of .002 (2 mg.) 4 reacted with general symptoms and fever to 39-40° C.

Of 21 patients who received .005 (5 mg.) 8 showed reaction with fever to 38.1-40° C.

Of 16 patients who received .01 (10 mg.) 12 showed reaction, 4 fever to 38° C., and 8 with fever to 38.5-40.3° C.

The fever came on generally with a chill or a shaking chill, and as a rule six, eight, or ten hours after injection. The other accompanying symptoms, headache, weight in the limbs, and feeling of heat, were also similar to those exhibited by the tuberculous.

J. B. ELLIOTT, M. D.



## Abstracts and Selections.

REPORT ON THE KOCH TREATMENT OF TUBERCULOSIS AT BERLIN.—(Remarks made at the Johns Hopkins Hospital Medical Society, January 5, 1891, by A. C. Abbott, M.D., Assistant in Bacteriology and Hygiene in the Johns Hopkins Hospital.) The world-wide interest created by the announcement of Koch that he had discovered an agent which he hoped would prove of value in the treatment of tuberculosis is at this time too well known to require comment.

At the International Medical Congress held in Berlin in August, 1890, he made a preliminary report in which he stated that he had by means of this agent succeeded, not only in rendering otherwise susceptible animals refractory to the inroads of the disease, but also in curing the disease after it had been in progress for a time. In a subsequent paper published in the *Deutsche Med. Woch.*, of November 13, 1890, he gave the results of its action upon tuberculous lesions occurring in human beings.

In this paper Koch recommends that all those who desire to study the action of the agent in tuberculous troubles should, if possible, begin by observing the reaction following its employment in lupus. Less conspicuous, he states, but still plainly apparent, is the local reaction in tuberculosis of the lymph glands, the bones and the joints in which, after an injection of the virus, there constantly follows, in addition to the systemic symptoms, swelling, pain, and, in the superficially located lesions, reddening. The reaction in pulmonary cases is recognized by the systemic disturbances which have their expression in elevation of temperatures, and, locally, by temporary exaggeration of physical signs.

The advantages following the use of the agent, as pointed out by Koch in this paper, are—

1. Its value as a diagnostic agent. In tuberculous subjects a reaction constantly follows its use in small doses (1–4 mgrs.); in non-tuberculous subjects no effect at all is seen after its employment in similar quantities.

2. Its action in surgical diseases, in which it brings about either a cure, as in lupus, or in which it renders the process amenable to surgical procedure, as is frequently the case in joint and bone lesions.

3. Its value in pulmonary cases. Upon which he remarks that the early forms of phthisis can certainly be cured by the employment of the virus.

Just what the *modus operandi* of the agent in these lesions is it is as yet impossible to say. Only so much is positive, that the cure or benefit brought about by its use does not depend

upon any disinfecting power over the bacilli themselves, but rather upon some nutritive change in the tissues in which they are located. In these tissues there is a sudden disturbance of circulation which results, as has been seen, in their rapid necrosis. The agent does not kill the bacilli, but rather the tissue in which the bacilli are located. This action is, moreover, confined to living tubercular processes. There is no effect whatever upon already necrotic caseous foci or upon necrotic bone lesions.

Following rapidly upon the contribution of Koch came reports upon the clinical aspects of the treatment as seen in many of the larger hospitals in Europe. On the whole, the evidence was of such a nature as to render it important that steps be taken to give to our patients an opportunity of availing themselves of any benefit that might follow the employment of the agent in tuberculous troubles.

With this object in view the Board of Trustees of the Johns Hopkins Hospital decided to send me as their representative to Berlin for the purpose of making whatever studies I could in this department of work, my instructions being to make every effort to study not only the clinical features of the treatment, but, if possible, to acquaint myself with the nature of the agent employed.

On the morning following my arrival in Berlin there appeared in the daily papers the address of Minister of Ecclesiastics, &c., v. Gosler, made in the "Reichstag" on the day preceding. In this address it was stated that the composition of the agent discovered by Koch would not be made public, and that for the present it would be reserved as a Government monopoly; not, however, for commercial purposes, but with the view of limiting its employment until its value was thoroughly established, after which the method of production would in all probability be published.

In a conversation which I had with Professor Koch himself, a short time subsequently, he said that Minister v. Gossler had expressed entirely his views on the subject. He added that the reason for the secrecy was simply to confine the use of the material to the practice of competent observers until its value could be established by accurate statistical evidence. When this was accomplished he hoped to publish a full account of his experiments and the technique employed in preparing the virus. Then, and not until then, he continued, will there be any statement made as to the nature of the remedy.

After this my time was given to the study of the clinical features of the treatment, and through the courtesy of Professors Leyden and Ewald and Doctors Köhler, Westphal, and

Klemperer I had all the advantages in this department that one could wish.

In the department of "The Charité," over which Doctors Köhler and Westphal presided, opportunity was given me for the study of a most interesting group of surgical cases, comprising lupus, joint tuberculosis, tuberculosis of the lymphatics, and a variety of non-tuberculous cases which had received injections of the agent for purposes of studying its action in subjects from whom the disease was absent.

In Professor Leyden's department, under the guidance of his assistant, Dr. Klemperer, a variety of cases of pulmonary tuberculosis, as well as cases with tubercular manifestations in other of the internal viscera, were placed at my disposal.

Professor Ewald, of the Augusta Hospital, was also very polite in demonstrating patients who were undergoing the treatment.

I wish here to thank these gentlemen publicly for their kind and considerate attention to me while I was a visitor to their clinics.

I shall not attempt to give in detail an account of the cases which were seen by me, but shall rather present the general conclusions at which I arrived.

Judging from the cases which I had the opportunity of seeing, I feel justified in concluding that the outlook for those coming under the head of "surgical tuberculosis" is a very favorable one. In the lupus cases, particularly, one may say that up to date cure has certainly been effected in a fair number. These cases, as was pointed out by Koch, present altogether the most favorable material for the observation of both the systemic and local reactions following the injections, and, as a rule, respond in an astonishingly rapid manner to the treatment.

In the group of surgical cases coming under the head of "joint tuberculosis" the injections of the virus have not rarely been continued until the systemic reaction practically ceased to appear, even though large doses may have been reached, and still the local expression may have improved but slightly or not at all. In one such case that I call to mind the joint cavity was subsequently opened, and in it was found a mass of necrotic tissue containing tubercle bacilli. This tissue was lying free in the cavity, and had evidently been thrown off from a point on the wall of the joint which still presented the characteristics of tuberculous tissue.

In a second case which I saw demonstrated there was every reason for believing that the condition was identical with that of the joint to which I have just referred. At operation, however, there was a conspicuous absence of any thing in the joint that would lead one to suspect the presence of offending necrotic tis-

sue. At one point, however, on the cartilage was an old scar, evidently of tubercular origin, and it is not improbable that the irritation of and effusion into the joint may have resulted from the local reaction in this bit of scar tissue, a reaction analogous to that seen in the scar tissue of the skin which remains after surgical operations for the removal of underlying tuberculous processes.

In the joint troubles of this character the best results which may be expected will be those arising from the action of the virus, combined with the treatment of the joint by the ordinary surgical measures.

It is as yet impossible to say what the result of the treatment in the pulmonary manifestations of the disease will be. Evidence in this department accumulates so very slowly that one is hardly justified in speaking confidently as to the results.

The employment of the agent in laryngeal cases of tuberculous nature should be conducted with the greatest care, and the treatment should begin with even a smaller quantity of the agent than that ordinarily employed as the minimum dose for other troubles. The congestion brought about in the tissues of this organ as a result of the treatment may plainly be seen to be of a dangerous if not of a fatal nature.

As is well known, Koch has said positively that phthisical patients in whom the disease is but only slightly advanced can be cured by the systematic employment of the virus. In his experience this class of patients were in a number of instances pronounced as cured after from four to six weeks. He claims further that a patient in whose lungs cavities of limited extent exist may be very much improved, and indeed almost cured by this method.

It has not been my province as yet to see any of the cases which have been reported as cured, though I have seen a number in which the tubercle bacilli were said to have disappeared for longer or shorter periods of time from the sputum of the patients.

From my personal experience in the wards in which the pulmonary cases were being treated, I feel constrained to say that in my opinion it is only with the greatest conservatism that one should express an opinion as to the result of the treatment. There is no doubt that many of these patients gave evidence of improvement, but for one to say positively that they were cured would, I believe, be at present a little premature.

The characteristic reaction of the tuberculous patients after injection of the agent begins to appear in from four to five hours after administration.

As a rule, it is ushered in by a chill, which



is closely followed by a rise of temperature often to 104° F. to 105° F. At the same time the patient complains of pains in the limbs, irritative cough, extreme lassitude, and not uncommonly vomiting. Less frequently a temporary icterus of a hematogenous nature has been observed, and not uncommonly there appears upon the breast and arms an exanthematous eruption closely resembling that of measles. The attack lasts usually from twelve to fifteen hours, after which the temperature does not ordinarily rise again until another injection of the agent is made, when the reactionary symptoms reappear. Exceptionally a secondary though less marked rise of temperature is seen on the following day, even though a second administration of the agent may not have been made.

In the reactionary fever following upon an injection of the agent the rise of temperature is commonly much more rapid than the subsequent fall. The temperature, in falling, not uncommonly reaches a subnormal point, often going as low as 96° F.

After the reaction has passed away there is a conspicuous absence of any thing that could point to the acute attack through which the patient had passed but a few hours before.

The local reaction can of course be best seen in those cases in which the lesion is most superficial, and for this purpose the lupus cases offer the most favorable field. In this group the selective affinity of the agent for tuberculous processes is seen in a most astonishing manner.

In but a few hours after the injection, which is usually made at some distance from the point of disease, there appear changes in the diseased tissues which indicate the beginning of some profound alteration in the affected area. As the fever rises the lupus tissues become reddened and swollen. This continues until through the lupus tissues there exist spots of a brownish-red color. These spots, when sharply circumscribed and isolated, are not uncommonly surrounded by a pale zone, which is in turn surrounded by an area of intensely congested tissue. The skin over the whole of the diseased area is tense, and from the ulcerating points a thin, watery exudate commonly escapes.

With the decline of the fever there is a diminution in the intensity of the local reaction, so that after two or three days the reddening and swelling have usually disappeared. The ulcerated spots and the parts from which there had been an exudation are covered by a brown crust, and over the smoother portions of the diseased area small, loose, scaly patches may be seen.

It is important to observe in this local reaction that very small, isolated patches of lupus tissue, the presence of which may not previously

have been observed, are commonly rendered apparent through the alteration which the agent affects in their ordinary condition. Even the most minute nodules which may exist in the unsuspected portions of the scar tissue, left after there had been an effort at natural healing, are brought to view.

Probably the most conspicuous feature in the action of the agent is its selective affinity for tuberculous tissue. In the local reaction seen in the lupus cases it matters little how intense the changes may be, there is practically no alteration in the healthy skin in the neighborhood of the process. For the same reason it is most striking to observe the action of the agent upon the lung tissues. Not uncommonly there appears after the first or second injection hitherto undetected localized points in the lungs which present physical signs not distinguishable from those accompanying small areas of tubercular infiltration.

In two cases which came to my notice I saw this result follow the injections. These patients were selected with great care as "control cases." Their lungs were carefully examined, and from physical signs (no expectoration being present) tuberculosis was excluded. After the first injection there appeared in the apex of the right lung in the one, and in the apices of both lungs in the other, a condition which gave all the characteristic signs of incipient tubercular infiltration. That this condition was tubercular, it was at the time impossible to say positively, as no bacilli were found, there being up to the time no expectoration, but from the physical signs and the characteristic systemic reaction there is but little room for doubt.

The exaggeration of the physical signs and general condition of the patient is likewise a common temporary result of the first injections.

In certain cases in which there has been much loss of tissue, where the vessels of the lungs are exposed and their walls weakened, hemorrhage is not uncommonly an accompaniment of the intense congestion brought about in the vessels of the diseased area.

Of the rarer complications may be mentioned icterus of a hematogenous nature, temporary albuminuria, and diarrhea in children.

To summarize then the conclusions which I was led to draw from the cases seen by me, it may be said:

1. That the outlook in surgical cases of tubercular nature is good, particularly in those most superficially located.

2. In the lung cases the outlook appears to be fair if the cases are treated sufficiently early. For advanced cases I think it would be premature to do more than speculate, in view of the existing evidence.

3. The intestinal cases, so far as they have as yet been observed, are unpromising.—*Johns Hopkins Bulletin.*

**NEUROSES OF THE GENITO-URINARY APPARATUS.**—At a recent meeting of the Chicago Academy of Medicine Dr. G. Frank Lydston made an address in regard to genito-urinary neuroses, in which he very properly limited the term to cases of purely functional derangement of the genito-urinary organs dependent upon pathological conditions of neighboring organs and conditions—probably of a spasmodic character—immediately dependent upon organic lesions of some portion of the genito-urinary tract itself. There are few morbid conditions of a functional character which are so trying to the patient or so embarrassing to the surgeon, and in the experience of physicians it is found that they are apt to be more often consulted regarding these functional nervous derangements than for the actual diseases upon which they depend. In view of the vast amount of labor and talent that has been devoted to the study of the reflex neuroses of women incidental to pathological conditions of the uterus and its adnexa, it is, as Dr. Lydston said, surprising that more attention has not been given to analogous conditions in the male due to disturbances of the generative organs, and especially of the urethra.

Taking as the point of departure the prostate, there will be found a close similarity between some of the morbid states affecting it and certain pathological conditions of the uterus. Anatomically and physiologically, the prostate strongly resembles the uterus. The tendency of its muscular tissue to undergo degeneration, and to form fibro-myomatous growths is strikingly like that observed in the case of the uterus. It will be found that certain remedies which have a marked action upon the unstriated muscular fiber of the uterus have somewhat similar action upon the prostate, this being especially true of the ergots of rye and corn and hamamelis. Certain sedative remedies have a special controlling effect upon irritative affections of the uterus, ovaries, and prostate alike. Carrying the argument a little further, it will be found that certain irritations of the prostate produce effects very like that induced by uterovarian irritation in women. False spermatorrhea—spermatophobia—pseudo impotency, involving disgust for the sexual act, melancholia, hypochondria, neuralgias, whether of contiguous or remote nervous filaments and nervous inhibition, amounting almost to complete paralysis, are all possible results of urethral or prostatic irritation, and these conditions are all represented by very similar disturbances, such

as hysteria and its congeners in the female, due to morbid conditions of the generative organs.

One of the interesting features of stricture of the urethra is the ensemble of symptoms of a nervous character that is so often seen, these neuroses being often entirely disproportionate to the degree of organic trouble present.

Cephalalgia, neuralgia in various localities, particularly sciatica, lumbar and intercostal neuralgia, are quite common, but are probably regarded by both physician and patient as coincidences rather than as bearing any consequential relation to the stricture. Associated with these symptoms are others, quite as prominent in some cases of a purely mental character, such as melancholia, hypochondria, disturbed sleep, incapacity for intellectual effort, deterioration of business capacity, perhaps associated with great irritability of temper. Disturbed digestion and general impairment of nutrition are quite constant. That these various abnormal conditions depend upon the stricture, Dr. Lydston said, is never appreciated fully until that organic disease is cured, when the complete restoration to health demonstrates their true relation to the primary source of irritation. Some cases of gleet are associated with considerable mental depression, which is commonly ascribed to the moral effect and the supposed drain upon the system. This lack of mental equilibrium may arise from reflex irritation through the sympathetic system, which is so closely allied with the functions and nutrition of the sexual organs. Morbid conditions of the urethra not only cause reflex neuroses in other portions of the body, but they are frequently the reflex result of disease of contiguous strictures. Thus Dr. Lydston has noted cases of spasmodic stricture depend upon hernia and varicocele, and Dr. Otis has described some very interesting cases of chronic spasmodic stricture of reflex origin. Operations about the anus are frequently followed by spasmodic stricture and consequent urinary retention, and morbid conditions of the interior portion of the urethra often cause reflex disturbances of the deeper portion of the canal, or indeed of the bladder. This is very familiar in connection with the results of contraction of the meatus.

These remarks of Dr. Lydston, who has made a special study of the subject of which he speaks, may well attract attention. In one sense it can hardly be said that the remote effects of disturbances of the genito-urinary apparatus have been neglected, for many quacks have dwelt upon them too much to their own advantage. But it is true that the nervous derangements due to disturbances or disease of the genito-urinary apparatus of men have not been studied as thoroughly and as systematic-



ally as their congeners in women have been, and it may be well to have this point impressed upon physicians, so that some of the zeal now perhaps needlessly spent upon the genitalia of women may be directed to recognizing and curing the ailments of the sterner sex.—*Medical and Surgical Reporter*.

**THE ACTIVE PRINCIPLE OF PARSLEY IN AMENORRHEA AND DYSMENORRHEA.**—Various methods for the extraction of the active principle of parsley have been proposed from time to time, but there has been always a want of uniformity in the therapeutic results obtained with the so-called apiol preparations hitherto found in commerce.

With a view to obtain a reliable product, M. Chapoteaut recommended a study of the plant and finally adopted a new process for the extraction of a thick, reddish liquid boiling at 275° C. (527° F.), specific gravity 1.113.

This is a product totally different from true apiol (Von Gerichten), since the latter is a solid, melting at 30° and boiling at 300° C., and different from the essence or oil of parsley, boiling at 160° C., while its reddish color indicates that it can not be confounded with ordinary so-called commercial apiol, which is a yellow or green liquid having an approximate specific gravity of 1.07.

This new substance, therefore, has been named apioline (apiolinum) by M. Chapoteaut, and clinical experiments show it to be the true active principle of the plant.

Dr. Laborde\* has made an exhaustive study of the action of apioline and its derivatives, cariol, etc., on animals, which indicates that it stimulates the circulatory system of the intestines and genitals, causing vascular congestion of the uterus and ovaries, and exciting contraction of the smooth muscular fibers of the genital organs, especially of the uterus and ovaries.

Experiments made on female guinea-pigs and dogs demonstrated this special action in a very decided manner, and corresponding genital excitement was also observed in males.

These results have been remarkably confirmed by their therapeutic application in the French hospitals.

Apioline Chapoteaut administered in spherical capsules, 20 centigrams each, always relieved the pain in spasmodic and congestive dysmenorrhea, cases in which principal reliance should be placed on equalizing the circulation and increasing the power of the ovarian risus.

In amenorrhea, where the menses had been suppressed for a considerable length of time, the flow promptly reappeared.

In fact, all cases depending on uterine troubles amenable to internal treatment, and where a correct diagnostic of the symptoms had been made and suitable hygiene and treatment observed, this drug relieved the suppression, regulated and prevented or removed the accompanying pain, and proved to be the most powerful emmenagogue with which we are familiar.

In cases of scanty or deficient menstruation with pain, etc., one capsule can be given after meals, thrice daily for a week before the expected period, as recommended by Dr. Fordyce Barker:\* Apiolini, grams iv (about 3i); make capsule No. xx (Chapoteaut). Take three each day during the week preceding menstruation.

It is especially appropriate when amenorrhea depends upon anemia. The same authority suggests the administration of aloine or podophyllotoxin when amenorrhea and dysmenorrhea are complicated with constipation. Although apioline is looked on as a specific for menstrual disorders by many gynecologists, it must not be forgotten that these troubles are often subordinate or associated with a general atony of the system, which requires tonics, hematics (ferrum sanguinis), and suitable hygienic agents. Finally apioline Chapoteaut can not be expected to remove dysmenorrhea depending on mechanical obstruction of the cervical canal—causes of failure which are sometimes overlooked.

Dr. Vadeboncoeur, after a series of trials with apioline, writes: "I have obtained excellent results in painful cases of dysmenorrhea. One lady patient who was an hysterical subject, and who was obliged to use injections of morphine to relieve the pain, has found this unnecessary since I prescribed apioline."

Dr. C. Hewson Bradford, of Philadelphia, November 21, 1890, reports: "I have used it successfully in amenorrhea. Miss H., aged nineteen years, had always been irregular; her menses were always scanty, and for the last two months they had been absent.

"She expected her menses on November 17th, so on the 12th inst. I gave her the apioline capsules and requested her to take one morning and evening until after her sickness had appeared. To-day I visited her and found her much improved. She stated that menstruation had begun early on the morning of the 18th inst."—*Kansas Medical Record*.

**THE PAROXYSMAL HACKING COUGH OF CHILDREN.**—Sir Andrew Clark's paper on the "Hacking Cough of Puberty," read before the Medical Society of London, having drawn

\*J. Laborde, directeur des Travaux Physiologiques à la Faculté de Médecine de Paris.—*Tribune Médicale*, January 8, 1891.

\*See Shoemaker's *Materia Medica and Therapeutics*. Vol. 2, p. 447.

attention to this subject, it may be worth while to describe an affection, apparently of a similar nature, commonly met with in children. I refer to children from six to eleven years of age who are over mobile, with wandering eyes, frequent change of expression; the hands when held out present finger twitches and a balance which I have described as the "nervous hand," the wrist being somewhat flexed, the metacarpus arched or contracted laterally, the metacarpophalangeal joints extended back with slight flexion of the internodes, while the thumb is extended. The finger twitches are of individual digits, and fine lateral movements are the most characteristic. The balance of the head and spine is usually asymmetrical, and exhaustion is often indicated by fullness under the eyes, due to relaxation of the orbicularis oculorum. These children are usually well made in body, and free from those minor defects in form of head, ears, palate, etc., which indicate low development. They are frequently the offspring of neurotic parents or of a nervous mother. I have preferred thus to describe the class of children in whom the "hacking cough" is found, in place of speaking of these as nervous or delicate, because I do not think that they necessarily have any tissue delicacy. Advice is commonly asked in such cases on account of "paroxysmal cough" with emaciation, disturbed nights, and loss of appetite. Inquiry and examination indicate, in addition to the signs given above, that the child is a tooth grinder and has ground teeth, body weight is below the average (often seven pounds or fourteen pounds under), appetite is variable—usually defective, and may be accompanied by vomiting; but at times the same child may have voracious appetite with sudden "ravings for food." The urine is generally clear, with a specific gravity of 1030–35, and crystals of nitrate of urea are readily obtained on mixing with an equal volume of the acid, while the addition of strong sulphuric acid produces a deep purple line of staining at the junction of the fluids. The troublesome hacking cough, usually worse at night, the emaciation and exhaustion, suggests to the nervous mother that the child is consumptive, but diagnosis can be made by a normal temperature and the physical signs of healthy lungs. As this affection is common, it is important that it should be recognized. From an examination I have made of 22,000 children in schools, it appears that from 1 to 2 per cent of the children present the signs of over nerve mobility as given above, and of these a large proportion suffer at some period of their childhood from "hacking or paroxysmal cough" without lung disease.

As to the pathology of this affection, I do

not think that it is commonly reflex from peripheral irritation, either from intestinal worms, affection of the tonsils or pharynx, etc., but it appears to be due to an unbalanced central nerve action. Among other nerve centers, the pneumogastric appears profoundly disturbed, as indicated by laryngeal irritation, gastric perversion, and dense urine (not copious as in hysteria). As to treatment, these thin children lose their morbid symptoms when they gain a normal body weight, and this is best encouraged by residence in the country, a quiet and regular life under discipline, by hydro-carbonaceous diet, which should be plentiful and forced on them if necessary. Among useful drugs may be included belladonna, arsenic, and bromides, with tonics, cod-liver oil, and malt; alcohol should, I believe, be strictly avoided. All sources of mental anxiety and excitement should be removed, while a quiet but firm government of the child is provided. The prognosis of these cases is good under proper management, and parents may be encouraged by knowledge of the fact that these nervous children often make the best men and women in later years, though a source of much anxiety in childhood.—*Dr. Francis Warner, London Lancet.*

**A CASE OF LEUCEMIA**—The patient, colored, aged twenty-three, single, is a waiter by trade. He came to the Dispensary September 15, 1890, complaining of swelling of the legs and abdomen and incontinence of urine.

The family history is good. A mother, father, seven brothers, and three sisters are well; five brothers and sisters died in infancy, cause unknown.

The patient had always been well, with the exception of incontinence of urine, which had troubled him since he was a lad, and an attack of malarial fever lasting the greater part of two years. There was no history of rheumatism, alcoholism, or specific disease. He worked until two weeks before he was first seen, and has been working off and on since that time. Between the ages of sixteen and eighteen, while living in Baltimore, he suffered from malarial fever.

He refers the beginning of his present illness to last Christmas, when he first noticed a "lump" in the lower part of his "stomach," which was swollen. It is rather curious that he had not noticed it before, as he insists that it has grown but little in the past nine months. The swelling of the legs appeared in the following spring, and has persisted since that time.

Two weeks prior to his applying at the Dispensary he had a slight attack of diarrhea. He had also two or three attacks of nose bleeding.



The incontinence of urine was not materially affected by the disease.

Priapism, so often a marked feature of leucemia, has never been present. He had never weighed more than 165 pounds, while at present his weight is 175 pounds. He has never had any hemorrhage, save that from the nose.

At his first visit Dr. Osler dictated the following: "Present condition. Well built, well nourished man. Color good. Tongue lightly furred, indented. Pulse 84, tension +. Legs quite edematous to the knees. Lungs clear. Heart: Apex beat in fifth interspace, within nipple line; cardiac dullness not increased. A systolic murmur is heard at the apex, transmitted into the axilla and along the sternum. It does not obliterate the first sound. The second pulmonary sound is accentuated. There is pulsation visible in the superficial vessels, and a capillary pulse is well marked. Abdomen: At the umbilicus the abdomen measures 91.5 centimeters. It is prominent in the epigastrium and left hypochondrium. The superficial veins are not enlarged. A tumor mass can be seen to occupy the left zone. On palpation a firm, solid, movable mass is felt on the left side, extending to the level of the anterior superior spine, 7 centimeters from the pubic bone and 9 centimeters to the right of the median line at the umbilicus. A notch is not felt. The edge is best palpated in the right inguinal region. The mass is also felt below the ribs posteriorly. On percussion, dullness extends obliquely from the lower border of the seventh rib in the mid-axillary line for 41 centimeters. There is no pulsation, and no murmur is heard. Over the prominence in the epigastrium and left hypochondrium, bowel and stomach tympany are obtained. Liver dullness extends from the lower border of the sixth rib to 4 centimeters below the costal margin. Enlargement of the lymph glands can be nowhere discovered. There is no tenderness over bones nor enlargement of their extremities."

An ophthalmoscopic examination of the eyes, made at this time, was negative.

**Urine.** Yellow, clear, acid, trace of albumen, sp. gr. 1.016; microscopic examination negative.

**Blood.** The examinations of the blood at different times were as follows:

September 15th: Reds, 2,008,000; proportion of whites to reds, 1 to 4; hemoglobin, 30 per cent.

October 2d: Reds, 2,700,000; proportion of whites to reds, 1 to 4.48; total of Fowler's solution taken to date, minims cc.

November 2d: Reds, 3,430,000; proportion of whites to reds, 1 to 18.8; total of Fowler's solution taken to date, minims dccxx; hemoglobin, 51 per cent.

He was put on Fowler's solution, three minims three times a day, at his first visit (the dose to be increased every three days), and on increasing doses of belladonna. Unfortunately there was a misunderstanding about increasing the Fowler's solution, so that he has never taken more than six minims three times a day, which he is now taking. This amount is perfectly well borne, and will be increased steadily.

To-day, November 3d, the man looks and feels very well. There is almost no edema, and he has less trouble with his water. The condition of the abdomen is practically unchanged, though he says the lump feels smaller.

Dr. Thayer has prepared some slides, according to Erlich's method, and these he will exhibit and explain. From the examination of these slides he made the following table:

	Normal Blood.	This case, typical. (In 500 leucocytes.)
Lymphocytes.....	20-30 p. ct.,	3.8 p. ct.
Polynuclear (neutrophils).....	60-75 p. ct.,	50 p. ct.
Mononuclear, }		12.8 p. ct.
Transition forms, }	6 p. ct.,	18.2 p. ct.
Eosinophiles.....	2-4 p. ct.,	5.8 p. ct.
Myelocytes (mononuclear neutrophils).....	0 p. ct.,	29.4 p. ct.

The interesting features in this case are:

1. The malarial history.
2. The enormous size of the spleen.
3. The blood condition.

4. The very excellent general condition that has been maintained.—*Dr. H. Toulmin, Johns Hopkins Bulletin.*

**AN OVERDOSE OF STRYCHNIA TREATED BY BROMIDE OF POTASSIUM.**—On October 25th, at 9:10 A. M., I received a message that a patient had taken "a little more than a tablespoonful, instead of a teaspoonful, of his medicine." The day before I had sent him two ounces of Easton's syrup, labeled "a teaspoonful to be taken in water three times a day." At 9:50 I found the patient (a muscular man, twenty-nine years of age) in bed in a darkened room. He lay on his back, with the bed clothes pushed up over his eyes. His arms were flexed across his chest, and rigid; his legs were extended, abducted, and rotated outward. His face was distorted; the angles of the mouth were drawn down, exhibiting the risus sardonius. On attempting to speak, his articulation was indistinct. The eyes were open, but the darkness prevented observation of the pupils. Respiration was suspended, save for an incomplete inspiration. The skin felt very warm, and was bathed in profuse sweat. The pulse was small, soft, and too rapid to admit of counting.

On relaxation the patient spoke distinctly, and complained of such little light as entered through the drawn blinds. He begged me not

to touch him. After two minutes another paroxysm set in. Finding that he had taken more than one ounce of the syrup at about 8:30—symptoms developing about twenty minutes afterward, and increasing in violence until my arrival—I decided to give half an ounce of bromide of potassium. On offering this, dissolved in two ounces of water, the patient cried out he should bite the glass tumbler. A strong convulsion ensued. At 10 A. M., as soon as it was possible, he opened his mouth and I poured in one ounce of the solution. This was swallowed with great and convulsive effort, accompanied by rigidity of the limbs. The remainder was swallowed in like manner. During the next fifteen minutes he yawned several times and shuddered, closing his mouth with a decided snap. At 10:20 A. M. the skin was perceptibly cooler; the pulse stronger, and 70. There was complete relaxation, much sweating, and salivation. The saliva saturated two handkerchiefs. At noon he got up and sat in a darkened room. At 1 P. M. he had lunch. There was no difficulty in swallowing, but he felt twitchings at the corners of his mouth and brought his teeth together with exaggerated force. Besides this no other symptom occurred. The large amount of the bromide and the concentrated form in which the salt was administered caused nausea and a feeling of "burning" at the epigastrium. The patient sat up, read, and conversed until 9 P. M., and said that "he felt quite himself." The sedative caused no drowsiness. On measuring the remaining syrup I found he had taken ten drams in one dose, equal to  $\frac{1}{16}$  grain of phosphate of strychnia. The tablespoon used held exactly one fluid ounce.

This case suggests the unadvisability of dispensing Easton's syrup and similar potent medicines in undiluted form, and also the danger arising from the use of domestic measures of such uncertain and varying capacity as the spoon mentioned.—*W. B. Caley, L. S. A., London Lancet.*

**TESTICLE THERAPY FOR PHTHISIS.**—At the meeting of the Paris Société de Biologie, December 20, 1890, Dr. Brown-Séquard declared that charlatans were selling, under the names "elixir" and "tonic syrup of the nervous system," a liquid which they pretended contained the principle which he has announced as possessed of considerable dynamogenic power, and which is found in a liquid extracted from the testicles and spermatic ducts. Brown-Séquard protests against such deception of the public. The preparations to which he objects are all directed to be taken by the mouth, and

thus introduced into the stomach; but the gastric juice digests the fluid and destroys its dynamogenic powers, so that, even if the preparations actually contain what they profess to, they would be inert in the way they are administered. To be effective, the fluid must be injected under the skin or into the rectum.

Brown-Séquard also announced that a year or more ago several physicians had treated patients suffering with pulmonary tuberculosis with hypodermic injections of the testicular liquid, and that they had obtained very remarkable curative effects. Brown-Séquard, however, refuses to admit that phthisis can be cured with the fluid, though he does admit that by virtue of its dynamogenic power it may produce a great increase of strength, cessation of fever and sweats, and a notable improvement in digestion and nutrition, and in the secretions. At Brown-Séquard's instance, Goizet has been experimenting since June last with the injections in phthisis. In three patients with phthisis in the second degree the symptoms have disappeared, and there has been a gain in weight and notably in strength. Dr. Uspensky has also called attention to this method of treatment. He reports that in thirty patients there has been obtained a disappearance of the symptoms of tuberculosis and a notable gain in strength and in weight. Brown-Séquard adds, that where the fluid has been filtered with care and used with proper antiseptic precautions there is no fear of any dangerous febrile or other reaction.—*Medical and Surgical Reporter.*

**ECZEMA CAUSED BY VIRGINIAN CREEPER.**—Mrs. W., a lady of middle age, consulted me on October 15th last on account of an attack of eczema then commencing. The cheeks were highly inflamed, the chin and parts round the nostrils covered by a weeping vesicular eruption; there was also a partly papular and partly weeping vesicular eruption on the back of the neck, wrists, arms, breast, and legs, with much irritation, heat, and pain. The eyelids were greatly edematous, and were for a time completely closed. There was, however, no rise of temperature, and but little constitutional disturbance. No cause for the attack was then assigned, nor could I discover any. Under treatment, the patient being a good one and strictly carrying out all instructions, the attack quickly subsided, and she became convalescent. Suddenly, however, on October 29th, the disease returned with, if possible, increased virulence, the face becoming again swollen and edematous, and the vesicular weeping eruption appearing on that and other parts as before. On further consideration it was



now recollected that on the day previously to each attack Mrs. W. had been occupied in packing up and sending away to an artist friend a quantity of the leaves of the Virginian creeper (*Ampelopsis Hoggii*). This seemed to me hardly an adequate explanation, but the governess had on both occasions been helping her, and on both occasions had been similarly attacked. The gardener, too, who had picked the leaves was also attacked with some similar eruption, but as he was not under my care I can not vouch for the identity of the disease in his case. I then learned that toward the end of September Mrs. W. had had similar dealings with the same leaves, followed by a similar though much slighter attack of eczema. This is to me an entirely unknown agent in the causation of eczema, nor can I find reference to a like case. I should be glad to hear if others have had a like experience.—*Dr. E. L. Burd, London Lancet.*

**RESECTION OF THYROID FOR EXOPHTHALMIC GOITRE.**—The *Lancet*, January 17, 1891, says that in a recent number of the *Deutsche Medicinische Wochenschrift*, Dr. Lencke, of Hamburg, discusses the subject of exophthalmic goitre with special reference to its treatment. He claims that as the treatment of this condition by medicine is remarkable for nothing so much as its inefficacy, if the surgeon can offer even a chance of relief his interference is justifiable, and he relates two cases in which surgical interference seems to have had the best results. The first patient was a lad of seventeen, who had the classical symptoms of the disease—rapid heart, palpitation, prominence of the eyes, and goitre. He came under treatment on account of a sudden access of the swelling, which by the pressure it exerted produced great distress, with extreme cyanosis. The heart was rapid and irregular, no rest or sleep could be obtained, and the patient was in imminent danger of asphyxia. Tracheotomy was performed, and a week later one half of the tumor was extirpated. The operation was accompanied by much hemorrhage, which, however, stopped spontaneously, and recovery was uninterrupted. The symptoms rapidly vanished, the exophthalmos disappearing, and the heart becoming quiet and regular in action. The improvement was maintained until the time at which the paper was written. Operation was undertaken in the second case, which had long been under observation, because of the good result in the first. The patient in this case was older, the symptoms were similar, and the operation was the same. The improvement was also very marked, and the patient four months ago was able to resume his occupa-

tion. It is yet too early to estimate the full value of the procedure adopted, as regards cure of the disease; but if relief can be afforded in other cases as great as was apparently obtained in those just related, a strong case will have been made out for the surgical treatment of this distressing malady.

**THE NAILS IN NEURITIS.**—Modifications of the normal appearance of the nails are present under various morbid conditions. Often a serious illness leaves its mark in a peculiar modification of nail growth, apparently corresponding to the period during which the disease exerted its most powerful effect. This peculiarity is usually manifested as a band, varying in length with the duration of the illness, in which the normal appearance and color of the nails are changed. Such a condition is seen during fevers and after injuries of nerves. A more general modification of the appearance of the nails occurs also in such conditions as those of Raynaud's disease—a disease in which, whatever the ultimate explanation of its phenomena may be, there are evidences of profound trophic disturbance. In such a disease as multiple neuritis changes in the nails were to be expected, and in the *Neurol. g. Centralbl.*, No. 24, 1890, Bielschowsky describes such a case recently under his observation, in which nail changes were a marked feature. The case was one characterized by the usual signs and symptoms of peripheral neuritis, viz., weakness, wasting, tenderness of nerve-trunks, and absence of reflexes, with changes in the electrical reactions. The change which is described occurred in the finger-nails only, the toe-nails being unaffected, although the neuritis was present in the lower limbs. There were observed at first small white points in all the finger-nails. These occurred simultaneously, and gradually extended both in length and breadth, until a white band over a millimeter in breadth was formed, dividing the normal substance above from that below. As the nails gradually grew those bands were pushed to the periphery, and were finally removed and examined with the microscope. Examination seemed to show that the discoloration was due to the presence of air, and that the condition was thus similar to what is found in hair which has become gray or white.—*London Lancet.*

**TREATMENT OF ERYSIPELAS.**—The *Lancet*, January 10, 1891, says that an elaborate research, clinical and bacteriological, has recently been published by Prof. Nussbaum's assistant, Dr. Julius Fessler, on the treatment of erysipelas by ichthyol, a plan which has been for some years extensively adopted in Munich.

From laboratory experiments it was evident that, though ichthyol has only a slight effect in preventing the development of staphylococci, it has a very potent deterrent influence on the multiplication of streptococci, and it is well known that it is the latter kind of bacteria that are the cause of erysipelas. The method of treatment consists mainly of rubbing a strong ichthyol ointment energetically, and for ten minutes at a time, into the affected surface and in its neighborhood; ichthyol in the form of pills may also be given internally. Where there is a wound it must be very carefully disinfected, and an antiseptic dressing applied. The results of this treatment as compared with ordinary methods are embodied in several instructive tables. From these it appears that, while the mean duration of the cases treated by other methods from 1880 to 1888 was about twelve days, in no single year falling below nine days the cases treated by ichthyol from 1886 to 1888 presented a mean duration of under seven days, while in the first half of 1889 it fell to 5.6 days.

**AN UNEXPECTED CASE OF PUERPERAL FEVER.**—Prof. Paramuchi has reported a case of puerperal fever in which a very unexpected cause was brought to light, that is to say, the putrid remains of a tapeworm in the uterus. No untoward symptoms seem to have occurred until the tenth day after delivery, when the patient became feverish and prostrate, and lost her appetite. The lochial secretion was very foul. Large doses of quinine were ordered, but no effect was produced on the temperature, which the next day was 104.2°. The uterus was consequently washed out, two catheters being used for the purpose, as a regular uterine instrument was not at hand. The outlet catheter, after discharging some very fetid fluid, was choked up by what was found to be a putrid tapeworm. This was of course removed, and sublimate irrigations given, and the symptoms soon disappeared. Regarding the question of how the tapeworm came to be in the uterus, inquiries elicited the fact that a few days before her confinement the patient had been suffering from dysenteric symptoms, and, in view of her condition, had not taken any medicine. It is probable that the worm managed to migrate after delivery from the rectum to the vagina, and that there it died and became putrid.—*London Lancet*.

**LARGE BILIARY CALCULUS DISCHARGED THROUGH AN UMBILICAL FISTULA.**—In the New York Medical Journal, January 31st, Dr. Colgrove reports the passage of a very large biliary calculus by the way of an umbilical

fistula. A lady, aged eighty-three, had an abscess around the umbilicus, attended with a great amount of disturbance, pain, loss of sleep and appetite; it communicated externally by means of a fistula, through which pus was discharged for a week or more. One night she was suddenly taken with an increase of the pain, so intense that she became collapsed; with this there was the extrusion, through the umbilical fistula, of a calculus measuring four inches in circumference. Two months later the fistula had healed and there was a complete absence of local tenderness, and the patient was restored to her former measure of health.—*Journal of the American Medical Association*.

**IODINE INJECTIONS IN TUBERCULOSIS.**—DR. Heneage Gibbes, of Michigan, and E. L. Shirley, of Detroit, who hold to the old doctrine that pulmonary phthisis is distinct from tuberculosis, or rather that many cases of phthisis are non-tubercular (*Amer. Jour. Med. Science*, 1890), have been making experiments upon the best means for depriving phthisical sputa of their infectivity (*Medical News*, Dec. 27th.) Chlorine was an agent which, mixed with sputum, rendered it harmless when inoculated in the guinea-pig; but its therapeutic use was out of the question. They then found that iodine and iodide of potassium in solution with glycerine and water could, when injected into guinea-pigs, protect them from inoculation; and that the same property was possessed by the chloride of gold and sodium. They have applied this treatment to the human subject, using  $\frac{1}{12}$  gr. of iodine with  $\frac{1}{50}$  gr. to  $\frac{1}{20}$  gr. of the gold and the sodium salt as a hypodermic injection; or commencing with the iodine alone (slightly increasing the dose) and substituting for it the gold and sodium salt if not well borne. About twenty-five cases of phthisis have been so treated, the results being such as to encourage their further use of the plan; but we prefer to await fuller details before judging the value of the treatment.—*London Lancet*.

**STRYCHNINE IN SNAKE-BITE.**—A controversy is raging in Australia on this subject. The treatment of snake-bite by the hypodermic injection of strychnia was introduced by Dr. Mueller, and evidence of its success has been adduced by other medical men who have tried the plan. Dr. T. L. Bancroft has found, by experiments on guinea pigs, that the method is useless. Recovery from snake-bite, it is well known, does imply cure, and it is not easy in particular cases to distinguish the one from the other.—*Journal of the American Medical Association*.



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## UNIVERSITY OF LOUISVILLE.\*

The commencement exercises of the Medical Department of the University of Louisville were held March 2, 1891. The audience was one of the largest ever assembled in Macauley's Theater. This was fit, as it witnessed the graduation of the largest class ever sent forth by this old and popular school, the Degree of Doctor of Medicine having been conferred upon one hundred and fifty candidates by the Hon. Jas. S. Pirtle, President of the Board of Trustees.

At the close of this ceremony Judge Pirtle addressed the graduates in a brief happily-turned speech. He spoke of the rapid strides made in medicine in our own time, reminding the young men of the fact that medicine is year by year approximating more nearly the standard of the exact sciences. He dwelt upon the importance of recent bacteriological researches and their value in the diagnosis and treatment of disease. He dwelt upon the exaltation of the physician's office in the social sphere, and ranked it as second only to that of

the minister of the gospel. He instituted a comparison between medicine and law, and with characteristic courtesy left the young doctor with the impression that he esteemed theirs the higher calling. The speaker closed with a few fit words of healthful advice which the young physicians may well lay to heart.

The class valedictory was delivered by John H. Buschemeyer, of Kentucky, the major portion of which appears elsewhere in this issue. The young doctor spoke with great freedom and distinctness and made an unusually good impression upon his hearers.

The faculty valedictory was delivered by Prof. E. R. Palmer. We are fortunate in being able to present our readers with the full text of this address. Comment upon an effort of this character by this well-known, brilliant physician, lecturer, and orator would be here out of place. They who had the good fortune to hear it need not be told that it was delivered in the best style of the gifted speaker. Its worth as a study in sociology and contribution to the literature of medicine our readers will duly appreciate.

The following is a list of the graduates:

Arberry, J. J., Ky.	Cook, U. G., W. Va.
Avey, J. L., Ia.	Cundiff, J. D., Ky.
Ayres, J. H., Ark.	Combest, D. C., Cal.
Arvin, H. T., Miss.	Cochran, T. C., Ind.
Arnold, S., jr., Tex.	Casto, D. D., W. Va.
Aderhold, W. J., Tex.	Casto, O. J., W. Va.
Anderson, S. J., Ky.	Chapman, B. F., Tex.
Anderson, L. R., Tex.	Clark, N. M., Ky.
Allgood, S. E. M.D., Ark.	Dickason, E. E., Tex.
Buschmeyer, J. H., Ky.	Duerson, C. B., Ky.
Branaman, G. M., Ind.	Demaree, O., Ky.
Bradley, P. C., Ala.	Doss, W. J., Tex.
Bonney, C. W., Miss.	Day, J. B. H., Ga.
Brown, E. J., Ky.	Dale, W. E., Ky.,
Bell, A. C., Tex.	Eatherly, W. R., Miss.
Boatner, F. P., Miss.	Ellis, J. N., Tenn.
Brewer, F. L., Ark.	Earle, C. G., Ark.
Beeler, G. F., Ky.	Floyd, W. M., Ky.
Bolling, W. A., Va.	Fuller, S. J., Ark.
Crume, G. P., Ky.	Frazer, J. L., Ga.
Crutcher, W. E., Ky.	Gilbert, B. P., Ky.
Campbell, J. H., Tenn.	Gaulden, F. W., La.
Clancy, R. E., Ill.	Gill, W. R., Ky.
Chatten, E. A., Ky.	Gibson, J. C., Tex.
Caldwell, J. Mc., Tenn.	Hambright, J. G., Tex.
Cotton, C. C., Ind.	Heuser, Henry, Ky.
Cunningham, J. M., Va.	Hargan, J. F., Ky.

\*The astute reader will perceive that the date of this issue of the journal and that of the matter relative to the commencement exercises of the University make an anachronism. In view of the fact that the commencement came so soon after issue day it was thought fit to hold the forms open for the important matter which the event produced. We shall call time on subsequent issues.

Heard, W. R., Tex.  
 Hamilton, R. J., Ky.  
 (Examined June 1, '90.)  
 Hackley, J. M., Ky.  
 Haynes, A. F., W. Va.  
 Hustead, C. D., Mo.  
 Harman, J. M., Va.  
 Humphrey, P. S., Ky.  
 Hord, J. G. V. B., N. C.  
 Holstein, W. H., W. Va.  
 Hubbard, B. J., Tex.  
 Irvine, J. S., Va.  
 Jenkins, A., Ky.  
 Jones, J. H., Ind.  
 Jennings, J. T., Tex.  
 Jarvis, W. J., Tex.  
 Kessler, D. P., W. Va.  
 Kessler, A. K., W. Va.  
 Keith, J. G., Col.  
 Lowery, A., Ky.  
 Louis, J. D., Ind.  
 Lewis, C. A., Ky.  
 Lingie, S. L., Ind.  
 Lipsey, L. H., Ark.  
 Long, S. C., Ky.  
 Lutz, J. H., Ky.  
 Lawrence, G. B., Ky.  
 Lockett, L. P., Ind.  
 Long, E. A., Tenn.  
 McCain, J. H., Ky.  
 McWilliams, W. L., Neb.  
 McBride, I. N., Ind.  
 McNeely, T. H., Ark.  
 McGarity, E. P., Tex.  
 Marshall, D. J., Ind.  
 Maienthal, B. L., Ind.  
 Musgrove, A. K., Mo.  
 Miles, A. A., Ky.  
 Moss, R. H., Ky.  
 Meyer, S., Ky.  
 Morelock, S. B., Tenn.  
 Murphy, E. M., Miss.  
 Motley, J. G., Tex.  
 Morrison, M. T., W. Va.  
 Manes, W. H., Tex.  
 Neathery, E. J., Tex.  
 Napper, W. S., Ky.  
 Nunn, A. H., Ark.  
 Newman, C. M. M. D., Tenn.  
 Peck, D. C., Tenn.  
 Payne, E., Ky.  
 Pinson, P., Tex.  
 Pendergrass, J. J., Ark.  
 Peoples, M. L., S. C.  
 Pratt, D. T., Tex.  
 Pickens, J. D., Ala.  
 Rynerson, B. A., Mo.  
 (Examined June 1, '90.)  
 Ragan, G. W., Ky.  
 Robertson, J. D., Ky.  
 Rodgers, C. F., Tex.  
 Rivers, H. T., Ky.  
 Rieff, W. L., Ark.  
 Robinson, J. C., Ark.  
 Rainwater, E. P., Tenn.  
 Roselle, J. F., Ky.  
 Reed, E. A., N. C.  
 Russell, C. M. M. D., Ky.  
 Smith, S. J., Ky.  
 Sheffer, J. T., Ky.  
 Stevens, V. P., Ga.  
 Simpson, W. B., Mo.  
 Sheppard, R. Y., Ky.  
 Smith, L. H., Ind.  
 Sevier, R. H., Tenn.  
 Schrieffer, J. H., Ind.  
 Stedman, S. M., Ky.  
 Stigall, N. D., Ky.  
 Senour, W. E., Ky.  
 Smith, F. S., Tenn.  
 Sears, R. L., Tex.  
 Smith, T. W., Ky.  
 Sloan, J. A., Ky.  
 Sanderson, W. E., N. C.  
 Thrash, E. C., jr., Ga.  
 Tarver, B. F., Ark.  
 Thornton, H. G., Miss.  
 Thompson, W. R., Ala.  
 Trew, T. J., Tex.  
 VanAusdale, J. A., Ky.  
 Whitledge, G. A., Ky.  
 Welsh, H. C., Ky.  
 Winstead, S. D., Ky.  
 Wells, J. T., Ky.  
 Wood, G. H., Miss.  
 Warner, C. H., Fla.  
 Young, W. G., La.  
 Yeck, C. W., Ill.  
 Yager, W. H., Ky.  
 Total, 151.

## KOCH'S LYMPH.

The well known importing house of Lehn & Fink, New York, to which the profession is so much indebted for early consignments of new medicines from abroad, ask us to publish the following as a matter of news:

"A consignment of Koch's Lymph, which had been forwarded from Berlin on February 6th, and apparently mislaid in the New York custom house for a week or two after arrival, was finally delivered to Messrs. Lehn & Fink, wholesale druggists, 128 William Street, New York, on Saturday afternoon, February 28th. This firm has spent several hundred dollars in cablegrams during the period since the first announcement of the lymph discovery to date, with the result that they have now secured 60 vials of 5 grams each. A 5-gram vial is diluted to a  $\frac{1}{10}$  of 1 per cent solution and furnishes 5,000 injections. The vials are sealed, containing the reddish-brown, syrupy liquid, which foams on shaking, and each vial is accompanied by explicit directions and caution over the printed signature of Dr. Libbertz. It is assumed that this consignment is the first imported into this country for commercial purposes. Messrs. Lehn & Fink sell the lymph only in the original 5-gram vials, preferring thus to guard originality to the physician."

"Read my riddle well,  
 He who runs may read,  
 All may have the flowers now,  
 For all have got the seed."

Of course the supply will be at once exhausted, but it is probable that more will rapidly follow, and that very soon every doctor in the land will enjoy the doubtful and dangerous privilege of putting his phthisical unfortunates to the *experimentum crucis* of a drug of tremendous potency for harm with at best but very uncertain therapeutic value in any form of tuberculosis. In our letter from Germany may be found the *pros* and *cons* of the treatment at the hands of the German professors up to within a few weeks of the present writing. Our correspondent is a young physician and, "chameleon like, snuffs the air promise crammed," but it is easy to see in his very fair statement of the question that it is getting heavy on the negative side.

J. J. Arberry, of Kentucky, was recommended for the position of resident physician to the Louisville City Hospital by the unanimous vote of the Faculty.

The young doctors go forth to duty with the blessings of their *alma-mater*.



## Notes and Queries.

OPERATIVE TREATMENT OF CHRONIC DISEASES OF THE UTERINE APPENDAGES. — It would be well if the following letters written by two very eminent British physicians were republished far and wide throughout this country. It would be well if every medical man, young or old, were given an opportunity to read it. Thoughtful men began some time back to give themselves pause in the matter; but there are scores of rash and ignorant operators who continue to open the abdomen in young women and old and remove uterine appendages which exhibit no sign of disease whatever:

"The recent discussions on the diseases of the uterine appendages at the Medical Society, and elsewhere, have brought this subject prominently before the profession.

"Affections of the uterine appendages are nothing new; they are comprised under the name pelvic peritonitis, or perimetritis; and since the writings of Bernutz, in 1860-62, it has been well known, though not until lately current, that in a large number the route and sometimes the focus of infection have been the tubes.

"A change in nomenclature has arisen, for words ending in 'salpinx' have displaced the older and more general names. Yet further changes have arisen in practice in some quarters, in that these affections have become the objects of innumerable operations. Now perimetritis is probably the very commonest of all the serious diseases of women. It is also perfectly certain that the great majority of cases get quite well without any operation. We are far from denying that exceptional cases call for surgical procedures, or that cases of prolonged suppuration of the pelvis are properly treated by the application to them of ordinary surgical principles. But this wholesale resort to a mutilating operation, advocated by several speakers at these discussions, calls for serious consideration by the profession. We have both been in charge for many years of the obstetric and gynecological departments of two of the great general hospitals of London, besides private practice. During that time thousands of patients have passed through our hands, and a

very large number of cases of pelvic inflammation. We have on the rarest possible occasions resorted to removal of the appendages, and never unless life seemed to be threatened or the health had been greatly impaired for many months. We never have sent patients away after a course of Epsom salts, 'and when this drug fails have folded our hands, and expressed the deepest sympathy with the sufferer.' On the contrary, our patients have generally got well by the use of patience on their part and on ours. If, after a long course of patient treatment, it has seemed to us imperative to operate, we have been ready to do so, and have done so in rare instances. Without patience, many women, who have had matting of the pelvic organs for months, but who have perfectly recovered and have borne children, would have had their uterine appendages removed.

"Statistics on matters of this kind are often given in a manner which does not bring out important points. For instance, in the discussion at the Medical Society, it would have been interesting to know (1) the total number of women seen during the period embraced by the table, and (2) the total number of cases of perimetritis or pelvic inflammation among them. Statistics without these facts may give information as to the chances of the operation; those indicated would give the chance of being operated upon.

"A plea for patience is to be found in the declaration of the operators that 'the full benefits of the operation are not usually felt for months or years after.' If the operator would exercise this patience before the operation there might be the less need for its exercise by the patient after the operation. To operate after a 'couple of months' is, in our opinion, quite unjustifiable in chronic cases, or in any except those of peril to life. To remove the ovaries in cases of congenital ill-development with dysmenorrhea and sterility and anteversion of the uterus is a proceeding we have never seen necessary to recommend.

"Death from disease of the appendages is of extreme rarity, but the mortality after the operation is considerable. It is inconceivable to us that this amount of operating is justifiable, and we protest in the strongest manner against it.

"This particular operation has already furnished material for legal proceedings in a well-known case. It is conceivable that it might form the object of legislation. We can not think that the good sense of the profession can fail to be roused against it. The sooner the better. There are several other questions requiring an answer, some of which have been referred to by others; for instance, what were the results in the unreported cases? What are the dates of the reported cases? What were the results in general surgery at the Waterloo Bridge Road Hospital during the time of the unreported cases? These are questions concerning the authorities of that hospital. But we prefer to keep to our point, and to repeat our protest against the removal of the appendages whenever a tumor of them is found accompanied by pain and hemorrhage; or a dilated tube; or affections of the tubes with tender or even enlarged ovaries, after treatment has been tried for a couple of months; or when a woman suffers from pelvic pain, dysmenorrhea, or dyspareunia, after one or more attacks of pelvic inflammation; or in cases of ill-developed ovaries, with ante flexion and dysmenorrhea; or in cases of cardiac dyspnea; or of tubercular disease of the tubes associated with similar disease of other organs; or in neurotic women without disease of the appendages. We protest against the view that any one of the above conditions diagnosed before or discovered during or after an operation is in itself a justification for the removal of the uterine appendages; and such practice is, in our opinion, highly injurious to women and to the profession. In no other department of surgery is inflammation of an organ considered to justify its removal."

THE UNITED STATES MEDICAL PRACTITIONERS' PROTECTIVE ALLIANCE: Founder, Dr. J. H. De Wolf, Baltimore, Md.; President, Dr. W. H. Crim, Baltimore, Md.; Vice-President, Dr. W. V. Wilson, West Haven, Conn.; Secretary, Dr. J. F. Davison, Glendola, N. J.; Treasurer, Dr. R. B. Elderdice, McKnightstown, Pa.

*Constitution.* *Article 1.* This society shall be known as the United States Medical Practitioners' Protective Alliance.

*Article 2.* The object of this association shall be to maintain organized co-operation among the practicing physicians, who are legally qualified to practice in their respective States, and in good standing in the profession; for the purpose of protecting medical practitioners from the abuse of dispensaries that treat many who are well able to pay; from the unjust competition caused by short term, quick graduating, and inferior medical colleges. To endeavor to promote the passage of just and equitable laws regulating the practice of medicine in all the States, so that the license to practice issued by any one State shall be valid in any other State, and to devise means to enhance our financial condition (and thereby our usefulness) in every honorable way, and to derive the incalculable benefits that only can be obtained by combination and unity of action.

*Article 3.* The members of this association shall exercise toward each other, toward all physicians, and toward all mankind that courtesy and just dealing to which every one in his legitimate sphere is entitled, and any departure therefrom shall be deemed unprofessional, undignified, and unworthy the honorable practitioner. It shall also be regarded as unbecoming to engage in any form of advertising or practice which shall tend to lower the physician in the esteem of the community, or reflect discredit upon his professional associates.

*Article 4.* The officers of this association shall consist of a President, Vice-President, Treasurer, and Secretary, who will be elected annually. The seal of this association must be stamped on all official papers.

*Article 5.* The fees for membership shall be three dollars (\$3) on admission and two dollars (\$2) per annum thereafter. Delinquent members to be dropped for non-payment of dues whenever in arrears over two years.

*Article 6.* Any member may be officially censured, invited to withdraw, or be expelled from membership for improper conduct or violation of professional comity. But it shall be necessary for a specific charge to be made in writing, with name of accuser and a copy to be presented to the accused, or some person acting in his behalf, and another placed in the hands of the President or Secretary one month before



the time of holding a regular meeting, when ample opportunity will be given for a trial.

*Article 7.* That direct appeals be made by us as a body to the legislatures of our various States, from time to time, as may be deemed expedient, to secure the repeal of unjust or obnoxious laws which may be in existence, or the passage of laws that are vital to our success and our welfare as a profession.

*Article 8.* That an effort be made to secure a law in each State that will secure the medical practitioner from the many losses he now sustains from those able to pay, but unwilling, and to make the physician's claim in all cases a preferred one, which must be paid before the *pro rata* of an estate, as is now the law in some of the most enlightened countries of Europe.

Those desirous of joining, address Dr. J. H. DeWolf, 1600 Franklin Street, Baltimore, Md. Please enclose stamp.

CINCINNATI CORRESPONDENCE.—Dr. C. G. Comegys, Cincinnati's Nestor, has been re-elected President of the Board of Trustees of the Cincinnati University. Dr. Comegys is an honored member of the medical profession and eminently fitted for this post, especially as the medical, dental, and pharmaceutical colleges are now departments of the University. The University library has recently been enriched by the library of the late Matthew Thoms, left them by will; also in the sum of \$150,000 by the same testator.

A new dental college is being organized. It is to be the dental department of the Cincinnati College of Medicine and Surgery. The faculty will consist of G. S. Junkerman, M. D., D. D. S., Dean of the Faculty, Professor of Special Anatomy and Operative Dentistry; John M. Shaller M. D., Professor of Physiology and Practical Histology; W. E. Lewis, M. D., Professor of Descriptive and Practical Anatomy; A. I. F. Buxbaum, M. D., D. D. S., Professor of Prosthetic Dentistry and Dental Metallurgy; Charles H. Martin, D. D. S., Professor of Dental Materia Medica and Dental Pathology; Wm. Dickore, Ph. D., Professor of Theoretical and Analytical Chemistry. A dispensary and dental laboratory will be connected with the new school. It will have a

task before it if it displaces the hold the old and honored Ohio College of Dental Surgery has on our people.

Hypnotism has received a back set in Cincinnati. Health officer Prendergast has done a very commendable thing by forbidding a public exhibition by a certain "professor." The health officer has the support of the medical profession in this stand. Dr. A. B. Richardson, of this city, late superintendent of the Insane Asylum at Athens, has recently written a very able article on this subject. The general opinion is that it is a matter which demands careful watching that it do not more harm than good, but which under certain restrictions is capable of much good.

The Cincinnati Hospital report for the past year, as made by Superintendent McLean to the Board of Trustees, is as follows: Births, 216. Total number in the hospital during the year, 5,020. Discharged, 4,325; died, 379; remaining over, 316. The daily average cost of maintaining a patient is 83.9 cents. Total number treated in the accident ward, 429. The total number of accident and patrol wagon cases amounted to 1,289, and out of that number 18 were dead on reaching the hospital. In the drug department there were 24,930 prescriptions made during the year at an average cost of 11½ cents. The library fund, which comes from the tickets to lectures in the amphitheater, amounted to 1,275, which means 255 students in attendance on the clinical lectures.

The Cincinnati Obstetrical Society at its annual meeting elected the following officers for the ensuing year: President, Dr. E. W. Mitchell; Vice-President, Dr. Rufus B. Hall; Recording Secretary, Dr. Thomas P. White; Corresponding Secretary, Dr. E. S. McKee; Treasurer and Librarian, Dr. John L. Cleveland.

Dr. E. W. Mitchell has the honor of being president of two medical societies in the same city—the Obstetrical and the Walnut Hills.

A sad case is reported from Fostoria. A prominent and honored dentist was accused of rape by a milliner who was having her teeth treated. This weighed so heavily on the doctor that, though acquitted, he was taken ill and died. What punishment is meet for that woman?

E. S. M'KEE, M. D.

**MEDICAL EXAMINER'S BILL IN PENNSYLVANIA.**—Under the head of Correspondence, the *New York Medical Times*, February, 1891, publishes the following, which is especially interesting as appearing in a journal long sailing under the homeopathic flag.

Medical legislation in Pennsylvania is in an unsettled condition. At the last meeting of the legislature the Medical Examiner's Bill was defeated through the efforts of the New School. In anticipation of renewed efforts for its passage this year, the New School will offer a substitution measure entitled "An act to establish a State Board of Medical Education." This board is to consist of nine members, to be selected equally from three lists of ten names submitted by the State medical societies, "to the intent that the three systems of medicine, homeopathic, allopathic, and eclectic be equally represented thereon."

The duty of the board is to regulate the extent and character of the preliminary education to be required of all medical students; to fix the minimum curriculum of studies in medical colleges, provided that the course shall not be less than four years, which shall include three years of lectures. Each graduate of colleges, as upon evidence of the dean, who has conformed to the requirements to the board, shall receive a certificate entitling him to register in any county of the State.

Graduates of other colleges whose standing is approved by the board receive a similar certificate allowing them to practice, but if from colleges of a lower standing they must first pass an examination which shall apply to their preliminary education as well as medical knowledge.

Should the board discover after the passage of the act that any medical college has granted the degree to any one deficient either in preliminary or final examination, it shall proceed against such college for infringement of the law. The penalty for the first offense is a fine, and for a second offense a fine and the certificate withheld from future graduates except upon examination before the board. In conviction for a third offense the charter of said college shall be annulled.

It is difficult to see what advantage this bill has over a fair Medical Examiner's bill. Both

admit the principle of outside interference with the right of college faculties to decide who shall enter upon the practice of medicine. The Medical Education bill does this by prescribing the curriculum and then approving the work of colleges living up to it. The Medical Examiner's bill does it by requiring a final examination of all graduates before they shall be allowed to practice in the State. The latter method is the simpler one, and makes no discrimination in favor of medical colleges located in the State, and is similar to the methods adopted by the profession in other States.

It would be difficult for the Board of Medical Education to decide that other medical colleges in the United States were living up to its standards, because even in Pennsylvania, to make sure of this fact, part of section 6 provides that "the board shall delegate one or more of their number, who from time to time shall make an inspection of the methods of instruction employed and the facilities for teaching, in each such medical college, and annually report the same to the board."

The New School bill, by removing the fear of another examination from all who graduate at colleges in the State, legislates for the colleges rather than for the profession at large, because they would attract more students by holding out as an inducement the freedom of practice in Pennsylvania to all their graduates, and it is very probable that large number of the latter would enter the already overcrowded ranks of the profession in that State.

Let Pennsylvania pass a Medical Examiners' bill that is fair to the whole profession of that State, and when the remaining States have done likewise, then let us have a National Board which shall prescribe a uniform examination for all graduates in medicine (this was first suggested by Prof. Osler, of Johns Hopkins), so that, having passed the examination in Pennsylvania, the certificate of that examining board shall be accepted by every other State as granting the right to practice medicine.—*Medical and Surgical Reporter*.

**SANITATION AND CHOLERA IN EGYPT.**—A perusal of the reports from mudirs, governors, and sanitary inspectors leads to the conclusion



that in some of the larger Egyptian towns, notably Tantah, an attempt was made to improve the more glaring sanitary faults, but that on the whole very little was done which, had cholera visited Egypt, would have had any effect in mitigating its ravages.

Villages are still surrounded by putrid ponds; cemeteries, almost without exception, are veritable *foyers* of infection; the vast majority of the people live in filthy unventilated hovels; any whitewashing that was done was on the outside of huts, where instead of being salutary it is, in a cloudless climate, absolutely the reverse. Mosque and other drains still, with very few exceptions, discharge into the water-courses and ponds whence the people obtain their water supply; and the *medahs* (ablution basins) and latrines are still maintained in the same horribly insanitary condition as formerly.

Mudirs and governors have, almost without exception, represented the sanitary condition of their districts as perfect, and some of the sanitary inspectors, for obvious reasons, have indorsed their remarks; but mudirs and governors do not know what sanitation means; or else, like many Europeans, have the most lordly contempt for it. If it be really desired to remedy the sanitary condition of the people, power should be given to the sanitary officials, who are the experts in the matter, to enable them to improve the existing deplorable state of things. It is worse than useless to attempt superficial sanitary reform under local authorities who are ignorant of the first principles of the science.

Last year, happily, Egypt escaped the pestilence, but who will guarantee the country against its advent next year? If the cholera does come, let it not find those in authority unprepared.

Give the sanitary department the means of organizing a force to resist its attacks. Their requirements would not be enormous. A soldier is not sent into battle without weapons; at least give him the money to buy a shield. Above all, let not all real work be paralyzed by the institution of commissions—by the intrusting to amateurs the duties that belong to specialists. If an expedition to the Sou-

dan were necessary, the command would not be intrusted to a financier; neither, if a conversion of a public debt were again on the tapis, would a general be charged with the delicate negotiations necessary for its accomplishment. The voluminous reports of these commissions should be compared with the work they accomplished; they were styled "executive;"—wherein did they execute any thing? They met round a table, talked a great deal, spoiled an immense amount of paper, smoked an inordinate number of cigarettes, and executed absolutely nothing. All they did was to create a false sense of security, and waste the time of the sanitary officials who had to attend them.

If, in an emergency, the sanitary protection of the country is to be intrusted to amateurs, then let the sanitary department be at once abolished, and the money now spent on it economized.—*British Medical Journal*.

KOCH'S LYMPH.—The New York Medical Journal, editorially, says: It seems that Koch was guided to his discovery by observing the action of tubercle bacilli, living or dead, on tuberculous and non-tuberculous guinea-pigs. In the healthy animal an inoculation of the pure cultivation gives rise, after a period of incubation varying from ten to fourteen days, to a hard nodule, which soon breaks down into an ulcer and persists until the animal dies. When, however, a guinea-pig already tuberculous is thus inoculated, no nodule forms, but the superficial tissue at the place of inoculation becomes necrosed and falls off. Injections of a quite dilute glycerine infusion of a pure cultivation cause the animal's condition to improve. Evidently, having got thus far in his observations, Koch was unable to overlook the obvious suggestion that even dead bacilli, or at least a solution of some of their constituents or products, contained something that might be made available as a drug and produce the same effect. It was then, therefore, a comparatively simple matter to arrive at the production of the curative liquid now in use. We see no reason why it should not now be prepared in any well-equipped bacteriological laboratory, and thus the restriction heretofore put

upon its general employment be ended. In the absence of a more detailed account of its preparation than Prof. Koch gives, it may, we think, be assumed that any person who would consider himself conversant enough with bacteriological methods to attempt the work of producing such a liquid would not, even without a hint as to the steps in the process necessary, have been in the least likely to produce an agent more dangerous than the Koch liquid itself. But Prof. Koch feared such an occurrence when he first promulgated his method of treating tuberculosis, and his judgment was deferred to by the medical profession. He now brings up in support of his previous secrecy the argument that the less the clinicians knew about the nature of the liquid the more unbiased would they be in their observations of its action. This strikes us as odd, but there may be men so constituted. At all events, we are glad that the nature of the remedy has now been made known. The question of its curative action is still very far from being settled.

quantity of gas introduced varied from half a liter to a liter. Cellular emphysema was of course produced, and a sensation of heat was complained of, but both disappeared entirely in the course of a few hours. There was no calnative action or slowing of the respiration, but there was a marked stimulating action on the heart, such as is indicated in the collapse that follows pneumonia or fevers of a typhoid character, also in cerebral congestion and asphyxia. No indication is given of the temperature at which the oxygen is introduced, a point which, according to Dr. B. W. Richardson, is of great importance. Perhaps the Spanish observer, who does not appear to be aware of Dr. Richardson's work, is mistaken in ascribing the advantage gained by using oxygen prepared *ad hoc* to its being nascent, whereas it is probably due to the temperature being high. It will be noted that Dr. Valenzuela confirms Dr. Richardson's statement that oxygen is relaxant and eliminative.—*The Lancet*.

## SPECIAL NOTICES.

THE usefulness of good Hypophosphites in Pulmonary and Stomach affections is generally agreed upon by the Profession.

We commend to the notice of our readers the advertisement in this number. "ROBINSON'S HYPOPHOSPHITES" is an elegant and uniformly active preparation; the presence in it of Quinine, Strychnine, Iron, etc., adding highly to its tonic value.

G. W. SEATON, M. D., Hall, Ind., says: I used *CELERINA* in a case of nervous prostration with such encouraging results that I have been induced to give it a trial in a number of other instances, particularly in a case of sexual impotency, and the results have been satisfactory in every instance. I regard *CELERINA* as an excellent nerve stimulant and tonic, and well worthy of the extensive trial the Profession seems to be giving it.

A CASE IN POINT. A prominent manufacturer, Mr. T., living in New Jersey, consulted me some eighteen years ago in reference to certain distressing symptoms, which to his mind, proved apoplexy. As two brothers of his had died recently of that disease, with the same preliminary symptoms, I did not feel justified in saying that his fears were groundless.

Good feeders and torpid bowels told the story.

I ordered a large teaspoonful of "FARRANT'S SWEETER APERTIENT" in half a tumbler of water before breakfast, and his troubles soon disappeared, and he is living to-day hearty and well, and has often told me since that the APERTIENT saved his life.

P. F. HAYT, M. D.

Lewisburg, Pa., October 7, 1890.

THE HYPODERMIC INJECTION OF OXYGEN.—Dr. Francesco Valenzuela, physician to the Provincial Hospital, Madrid, has just published in *El Sig'o Médico* a paper on new methods of administering oxygen, with especial reference to the treatment of senile pneumonia. Believing that oxygen inhaled in dyspnea fails frequently to relieve because it does not come in contact with a sufficiently large vascular surface, he began administering the gas per rectum and also hypodermically. In every case in which the oxygen enema was given the dyspnea was relieved in a decided and permanent manner. The ease and rapidity with which the gas was absorbed by the intestine were very remarkable. Oxygen, indeed, appeared to be as rapidly taken up by the intestine as by the lungs, four injections of five liters each being absorbed in an hour, thus proving the intestinal mucous membrane to be capable of serving as a most valuable adjunct to that of the lungs. In employing oxygen hypodermically Dr. Valenzuela believes it to be important to introduce the gas in its nascent state. The situation selected for the puncture was the arm, and the



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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else—RUSKIN.*

## Original Articles.

### MEMBRANOUS CROUP (PSEUDO-MEMBRANOUS LARYNGITIS) AND ITS TREATMENT BY INTUBATION.

BY J. W. MOTT, M.D.

In what follows I will try to limit myself to the form of disease known as membranous croup and its treatment. As the question whether there be a difference between diphtheria and membranous laryngitis is still mooted, I will not here undertake to discuss it. The subject demands the thoughtful attention of the entire profession, since the older methods of treatment furnish an alarming percentage of deaths. It matters not what we may call the malady; it certainly calls for a more effective mode of treatment than has been generally adopted by the profession. In view of these facts the following report of a case successfully treated will prove interesting:

On September 16th Dr. N. G. Morris was called to see a child presenting the usual symptoms of croup. He prescribed tincture of iron, chlorate of potash, and a spray of lime-water. This treatment was continued for two or three days, the patient gradually getting worse. On the evening of the 19th I saw the child in consultation with Drs. Morris, Murphey, and Whayne. The little fellow was apparently in the last stage of membranous croup. He was much exhausted, cyanosed, had a pulse of 150, respirations about 75, heart very weak, eyes with that peculiar glare seen only in the last stage of this affection. The child was *in ex-*

*tremis*, and it was the opinion of the doctors that, unless immediate relief was given, death would occur in less than two hours. Intubation was agreed upon, and with the assistance of the doctors I introduced a suitable tube into the larynx. In less than five minutes the breathing was much improved. The number of respirations and the frequency of the pulse were greatly reduced, the eyes brightened, and the color returned to the cheeks.

The patient did well for thirty six hours, when he coughed up the tube. Dr. Murphey, who was with the case, sent immediately for me. I got to the patient in two hours. It was found that after coughing up the tube a strip of membrane three inches long and one fourth inch wide had come away. Before introducing the tube an emetic of ipecac and turpeth mineral was given, but this did not cause any membrane to be thrown out. The patient still having a rattling, difficult breathing, we re-introduced the tube. It remained in place about six hours, when it was again thrown out. I was again immediately sent for. When I arrived we concluded the membrane was loose in the larynx, and gave an emetic. This time we succeeded in getting several small shreds of membrane. Then we inserted the tube. This time the patient did not seem to get on well. His breathing was good; but his trouble appeared to be a general letting down of the system. The tube was removed and the breathing continued good, but for a time it looked as if the patient would die of exhaustion. A large injection of whisky (one ounce) by rectum was given, and in fifteen minutes he revived a little. The stimulant was continued during the night. The next morning to our surprise he was still alive, breathing having been very good all the time. On the second day he was a little better, and then we began to have hopes of his recov-

ery. During the third day he coughed up some loose membrane, making in all a membrane three inches long and as large as a lead pencil. Small doses of bichloride of mercury were given at the beginning of the disease, and an expectorant of senega and chlorate of potash was also exhibited. Nourishment was given by rectum throughout the course of the disease.

On the morning of the third day the breathing was good, but the patient was very stupid. On the morning of the fourth day breathing good, but the general condition had gradually grown worse. We kept him well nourished and stimulated. On the morning of the fifth day his condition was some better, and so on from day to day he slowly improved.

On the morning after we first passed the tube into the larynx we kept a kettle of slaked lime effervescing by the side of the bed, and continued it for three days. There is no doubt in the minds of any of the consulting physicians that the saving of the little fellow was primarily due to the tube. Complete paralysis of the muscles of deglutition soon developed, and it was impossible to give any thing by the mouth. Feeding by the rectum was resorted to for several days.

I believe bichloride of mercury in croup, as recommended by Prof. A. Jacobi, is the best internal remedy. The room should be well ventilated and kept at the proper temperature, the air being loaded with slaked-lime fumes. Keep the patient well stimulated and nourished. Have him carefully watched, especially while the tube is in the larynx; and if breathing should become interfered with, the tube should be taken out and cleaned. The loose membrane below the tube may be coughed up against the tube and close the aperture. In such a case it should be removed at once. Indications for performing intubation, according to Prof. O'Dwyer, are just the same as those for performing tracheotomy.

After-treatment is of great importance. Keep the room free from draft and dust, keep the patient as quiet as possible, and when he is moved keep his head and shoulders perfectly steady, never allowing the head to twist from side to side.

Dangers of intubation should be carefully

studied, as a mistake would cause great trouble and no little amount of mortification to the operator. A common danger is in letting the tube pass down on the side of the larynx into the ventricles, where it may lodge. Dr. O'Dwyer says when the mistake occurs it only requires a small amount of force to make a false passage. Another danger is in pushing down loose membrane into the larynx. Dr. O'Dwyer has had this to happen to him three times while operating on two hundred and nine cases, but only one proved fatal. If we give our patient an emetic, he will be more than likely to throw up any loose membrane that would be likely to be pushed down in the larynx. If no membrane is thrown out, then we may feel comparatively safe in introducing the tube.

The earliest record of catheterization of the larynx is described by Hippocrates, who suggested that in inflammation of the throat a canula should be passed into the larynx through the mouth to allow air to enter the lungs. Desault, in 1801, and many others after his time appeared to have success in treating stenosis of the larynx by introduction of the catheter. Bouchet, in 1858, made the first attempt to introduce a short tube in the larynx that would allow the epiglottis to close over it, but met with little success, and it soon fell into disuse, being succeeded by tracheotomy. Prof. O'Dwyer, without the previous knowledge of the former experiments with the tube or catheter, twenty-five years later gave to the profession the present mode of intubation, which so far, in the hands of those who have had practice, has proved, beyond a doubt, a life saving measure in many cases.

I believe the reason the operation does not meet with better success is because it falls into the hands of doctors who have had no practical experience on the cadaver before they attempted the living subject. It is an operation that requires actual experience, and when undertaken without this is sure to prove an awkward and bunglesome affair. It is too late to undertake to practice on the little sufferer in order to introduce the tube when we are called to his bedside. In order to perform the operation successfully, the operator should know, when he takes the instrument in hand, just how



when, and where to put it. I am aware that the great objection met by the profession to the operation is the danger of pushing down membrane into the larynx or trachea before the tube. This, we understand, might occur and prove fatal, but is not likely to happen if due caution be taken. In performing any operation we are liable to meet with fatal accidents. Chloroform is given by physicians all over the country to allay pain when performing operations. It adds somewhat to the dangers of the operation, but no one would think of discarding it on that account. Intubation, with all its drawbacks, furnishes a greater chance for life in croup than any other operation. Deaths on the table from tracheotomy are ten times as frequent as immediate death from intubation. If intubation does not effect a cure, it most generally affords immediate relief and allows the little sufferer to die an easy natural death.

FULTON, KY.

## OBSTETRICS AND GYNECOLOGY.

BY E. S. M'KEE, M. D.

Report of Sixty Cases of Uterine Myomata treated by electrolysis, with description of a new form of electrodes and a coulomb-meter, was the subject of a paper by Dr. J. H. Kellogg, of the Battle Creek Sanitarium, Battle Creek, Michigan. The doctor during his visit to the clinic of Dr. Apostoli was particularly struck, as indeed is every one, with that gentleman's patient and painstaking method of prosecuting his work, and the infinite care with which morbid conditions were observed and recorded, characteristics which are not common to his opponents. After many experiments he has decided on using a gelatine-graphite electrode. It is made as follows: Dissolve 20 ounces of best gelatine in 10 ounces of boiling water; add 10 ounces of glycerine and 2 drams of sodium chloride; heat well and add 10 ounces of finely pulverized gas carbon and mix thoroughly. This is molded into an electrode after very particular directions, which are given. He finds that he can communicate a greater quantity of electricity through this electrode than through that of the clay. It is light,

clean, adhesive, a good conductor of electricity, and durable. The doctor usually employs a current of from 50 to 250 milliamperes. For the last two years he has used a coulomb meter for determining quantitatively the electrical dosage employed. The coulomb is the standard unit of the measure of electrical work. The instrument shows the measurement of the amount of oxygen and hydrogen produced in the decomposition of water. He reads not only the strength of the current determined by the milliamperometer, but also the actual amount of electrolytic work done during the seance by the reading of the coulomb-meter, giving the patient as a rule as much current as can be borne without excessive pain and continuing the application a sufficient length of time to produce the number of coulombs which he judges to be the proper dose for the case in hand.

The doctor has made a careful study of both the methods of Apostoli and of his opponents, and has reached the conclusion that neither method is the one to be universally adopted, but that each has its legitimate sphere in which it enjoys a superiority over any and all others. Of the cases reported by the doctor, slightly less than 13 per cent were not benefited by electrolysis, but submitted to a surgical operation and were cured thereby. A question of great practical interest is how to select the cases suitable for each method respectively. He found electrolysis beneficial in at least 34 per cent of cases. In case operation is necessary no harm has been done provided operative measures have not been delayed beyond reason. Small tumors are pretty sure to be benefited by electrolysis irrespective of their situation. There is a prospect of complete cure in interstitial growths of small or moderate size, and the prospect is almost as good if the greater portion of the growth is interstitial in character and its size moderate. In women approaching the change of life this treatment is indicated, as it hastens the change of life. The removal of the tumor itself, or the entire uterus, is an operation so fraught with danger as to be seldom justifiable. Sub-peritoneal growths will frequently not yield to electricity and will require the use of the knife. The risk of an op-

eration for the removal of the appendages is, in the uncomPLICATE state, not great in the hands of a skillful operator, not more than 2 per cent. It must be considered also that the application of electrolysis is in itself not wholly free from danger. Great mischief has already arisen and will probably again arise as the result of the propagation of the idea that electrolysis is a perfectly safe method. Certain it is that safety in the employment of electrolysis is to be secured, as in ovariectomy, only by the thorough employment of asepsis and the exercise of wisdom and judgment by the operator.

Treatment of Rupture of the Uterus is the subject of a report by Leopold (*Archiv. für Gyn.*, xxxv, 2), in which he cites four cases. In considering the question of laparotomy he warns operators that the hemorrhage which may be insignificant externally may be large in quantity and dangerous within. After laparotomy, hemorrhage being controlled and the abdominal cavity cleansed, suture the rupture if possible, or plug the uterus and vagina with iodoform wick, and draw another through the tear and lower angle of the abdominal wound. Subsequent treatment is according to the usual rules. In rupture of the uterus the child should be delivered so as to cause the least risk to the mother; not by turning, as that would extend the tear, but by perforation or embryotomy. If engaged in the lower pelvis, deliver manually or by the forceps. Laparotomy should always be performed at once and under strict antiseptic precautions in cases where the child has escaped into the abdominal cavity. The danger to the mother increases directly as to the time since rupture and the force used in attempting delivery, these factors leading to exhaustion and infection. The death of the child follows very soon after rupture. Although the mother may manifest great shock, if assistance is prompt and the hemorrhage successfully controlled the prognosis is good in the worst cases. Uterine rupture at the vesico-uterine fold is more frequent than generally supposed. The hemorrhage is not necessarily severe, and may be closed by forced ante flexion of the uterus by pressure and bandage together with plugging the ruptured uterus and the vagina with iodoform gauze.

Hysteropexia Vaginal is the subject ably discussed by Hydenreich in *La Semaine Médicale*, x. 29, 1890. He first describes the method which was used by Nicolitis, 1887, for the relief of changes of position of the uterus. After ligating the uterine artery the excision of the supra-vaginal column is commenced. The retro displacements were treated by suturing the stump to the anterior wall of the vagina by means of two sutures, thus causing the body of the uterus to fall forward. In cases of ante flexion or version the posterior wall of the stump is in similar manner fastened to the anterior vaginal wall. In referring to the published cases of Debayle, fifteen cases, thirteen recoveries, he thought the time yet too short. He did not promise a brilliant career for this operation.

Hysteropexia Vaginal in the treatment of the retro-deviations of the uterus is the subject discussed by Hartmann, *Annals de Gynecologie*, xxxiii, page 453, June, 1890. He considers the method employed by Schücking, the vaginal ligature of the retroflected uterus, dangerous on account of the possibility of wounding the bladder or an intestine, as well as the infection of the peritoneum from the not aseptic uterine cavity. The final result is not ideal. He criticises the false anatomy of Schücking and describes in full and comments favorably upon the method of Nicolitis.

Drainage after Abdominal Section was the subject of a paper by Dr. Ernest W. Cushing, of Boston, before the International Medical Congress at Berlin. As is the case with all of this gentleman's writings, the subject was handled in a very able and thorough manner. After discussing the frequency of the use of drainage in England and America and the absence of the same on the Continent, he followed by a general discussion of drainage and tubes. He described his own method of drainage as follows: When the patient is in bed a piece of rubber tubing about eighteen inches long with a lateral opening close to the lower end is introduced into the glass drain until it reaches the bottom of the latter. All fluid which can be extracted by the aid of a syringe is then removed, the rubber tube remaining in place. Every thing about the dressings being now



made dry and clean, the upper end of the drain is covered with clean crumpled gauze, which is enfolded in a piece of rubber dam, and from this emerges the end of the piece of the small rubber tube which runs down through the glass drain. The nurse has directions to suck at the outer end of this rubber tube without disturbing its position, by means of a small syringe, every ten minutes at first, and afterward every quarter or half an hour, according to the amount of fluid which is obtained. In this way a large amount of bloody fluid is often obtained while the patient is not disturbed in the least, and serious hemorrhage is at once detected. After eight or ten hours the rubber tube is removed and the glass drain is carefully dried by means of a wire wrapped with absorbent cotton. Then a rope of loosely twisted absorbent cotton is pushed down to the bottom of the drain by means of a wire; or a roll of gauze may be used instead of the rope. This remains in place two hours, and is replaced by another which remains a longer period, till the intervals are increased to three hours or more, as the secretion diminishes. When the secretion becomes scanty and straw-colored on the third day, if all goes well, it is time to withdraw the glass tube. He introduces the clean rubber tube through the glass drain and withdraws the latter, slipping it up over the former so that when the glass is out the rubber tube is left in its track. This is then pulled up an inch or two, cut off flush with the dressings and fastened with a safety-pin. It is shortened half an inch morning and evening till it is finally all removed. If every thing has been kept clean there is no trouble about the healing of the wound and no tendency to the formation of fistula. The main thing is to prevent the accumulation of fluid in the peritoneal cavity. If the drain is so placed as to prevent this the patient will recover, even after the most gruesome operations. On the other hand, if the fluid accumulates and the peritoneum fails to absorb it for any reason, the patient will surely die in spite of all the refinements of antisepsis.

Hysteria, the Provocative Agents which lead to its Manifestation, is the title of a book by Georges Guinon, Paris, published by *Le Progrès Médical*. Eighty-five cases are the basis

of this study. The exciting causes are very numerous: Emotional shock, education, imitation, attempts at hypnotism, nervous shock, trauma, earthquakes, lightning stroke, general and infectious diseases, typhoid fever, pneumonia, scarlet fever, acute articular rheumatism, diabetes, malaria, syphilis, debilitating states, hemorrhage, overwork, onanism, venereal excesses, enemia and chlorosis, chronic intoxications, lead, mercury, alcohol, sulphide of carbon, etc., diseases of the genital organs, pregnancy and parturition, certain nervous diseases, multiple sclerosis, tabes, Friedreich's disease, ataxia, primary myopathy, and Pott's disease. The work is clearly and convincingly written and the wealth of clinical material, mostly from La Salpetriere, adds greatly to its value. Like most of the pupils of Charcot and Salpetriere he finds hysteria much more frequent than do others.

CINCINNATI, O.

#### PUERPERAL ALBUMINURIA.\*

BY J. M. DALTON, M. D.

Mrs. C., age thirty-two, healthy parentage, primipara, had suffered for three or four years from painful menstruation. She gave a history of having been treated for enlargement of left ovary two years previous; discharged as relieved, ovary remaining slightly enlarged. Called to see me May 6, 1890, being in about the eighth month of her pregnancy. She had suffered from severe gastric trouble during the third, fourth, and fifth months, after which time she was comparatively comfortable until about the seventh month, when the digestive troubles returned with greater severity. Coincident with this return of gastric trouble, she discovered slight edema of the lower extremities, which became progressive, and was quite excessive when she came under my observation. For some weeks she had suffered from extreme constipation. Examination of urine showed albumen in moderate quantity. The constipation was relieved by mild purgative doses of Rochelle salts. Edema and gastric troubles continued in spite of all efforts with the various remedies directed to diminish and

\*Read before the Mercer County Medical Society.

control their progress. There was no disturbance of vision, no agitation of the nervous system.

I was called at 8 p. m., May 24th. Found her far advanced in the second stage of labor; pains vigorous and frequent. I gave her chloroform, and in thirty minutes after my arrival she gave birth to a well-developed child; labor normal; placenta came away in about twenty minutes after delivery of child; lost some blood, but no unusual amount. I made no pretensions toward antiseptics further than strict cleanliness; made no examination before delivery. A digital examination was made after placenta was delivered. Finding the uterus free from fragments of membranes or clots, and there being no injury, I ordered her bathed and removed to an adjoining room, where cleanliness and quietude were observed.

May 25th I found the patient easy and quite cheerful, temperature  $99^{\circ}$  F., pulse 110 per minute; kidneys acted freely at 6 A. M. The swelling of extremities was diminished, but general edema of the body was now apparent. Skin cool, clammy, and pallid. I gave digitalis and whisky.

May 26th, patient suffering no pain, temperature  $99.5^{\circ}$  F., pulse 120 per minute; heart's action weaker, but regular; respiration weakened, sighing occasionally, general edema increased, lochial discharge normal, kidneys acting freely.

May 27th, condition much the same; complained of numbness and stupor; bowels moved by medicine.

May 28th, condition unchanged, stupor deepened into coma, urine diminished, with excessive amount of albumen. Dr. A. D. Price, in consultation, advised the same line of treatment, increasing the dose. This condition continued to grow worse until June 2d, when she died.

The point, gentlemen, in this case of great interest to me is, did I do what was best for my patient, or should I have induced premature labor? In reflecting over the case I am free to confess that it was my duty, after all the measures and every other resource at my command failed to check the progressive symptoms, to have induced premature labor. Hence

I should recommend that you do not wait until your patient reaches such a degree as to imperil her life. If, after your remedies have had a fair chance, the nervous disturbance, edema, and headache continuing progressive, to my mind there is but one thing to do, induce premature labor.

HARRODSBURG, KY.

## ACUTE POLYMYOSITIS.\*

BY PROF. ADOLPH STRUMPEL.

Through the observations of E. Wagner, Unverricht and others, the existence of a disease has been demonstrated in most recent times, which consists essentially in an acute inflammation of the greater number, or seemingly of all, the muscles of the body.

The disease occurs most frequently on young or middle-aged persons. Pains in the arms, legs, and trunk come on without any apparent cause, sometimes more rapidly, at other times more slowly, and give rise to considerable disturbances of motility.

The general condition of the patient is at first but little at fault, but becomes later much deranged, when, as usually happens, fever sets in. A very striking symptom is the edematous swelling which is next developed, attacking first the extensor surface of the extremities, later even the face and trunk. The edema is firm, stiff, and painful, and occasionally reaches a considerable degree. A marked aggravation of the general condition occurs when the muscles of deglutition and respiration become involved. Taking of food becomes constantly more and more difficult, and violent dyspnea sets in. Bronchitis and lobular pneumonia soon develop, which are all the more distressing to the patient as expectoration becomes more and more difficult, and at last entirely impossible. The spleen appears, as a rule, to be enlarged. In most cases there is a strong tendency to sweating.

In all the hitherto published cases death ensued in the course of a few weeks, preceded by great dyspnea and cyanosis. It is not known if lighter cases terminating in recovery ever

Translated by John A. Ouchterlony, A. M., M. D., Professor of Principles and Practice of Medicine and Clinical Medicine, University of Louisville. Read before the Louisville Clinical Society, January 13, 1891.



occur. Anatomical investigation of the cases so far published revealed a genuine acute inflammation of the muscles. The muscular fibers exhibit not only all grades of degeneration and disintegration, but even in the interstitial connective tissue are found inflammatory foci. In a case recently examined by the author these changes were clearly demonstrable in all the muscles of the body, even in the muscles of the eye and tongue.

The *peripheral nerves* are found perfectly normal in genuine *polymyositis*. However, it is certainly possible that more extended observations may hereafter establish the existence of some relations between *polymyositis* and multiple neuritis. The *diagnosis* will probably soon, when the disease shall have become more generally and better known, present no great difficulty. The differentiation from *trichinosis* might perhaps be the most difficult. In the latter, however, the cause is to be taken into consideration. From multiple neuritis, *polymyositis*, to which otherwise it presents some resemblance, may be distinguished by attention to the presence of strongly marked edema.

As to the treatment of the disease, observations have been but few. In the beginning salicylic-acid preparations, antipyrine, and other remedies of their class might be recommended. Narcotics are almost indispensable toward the close of the disease.

LOUISVILLE.

## Societies.

### THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, January 13, 1891, Thos. P. Satterwhite, M. D., President, in the chair.

Dr. L. S. McMurtry presented a specimen from a case of extra-uterine pregnancy, with the following history:

Mrs. S. E. M., age twenty-seven years, married nine years. Eight years ago she suffered an abortion at three months, has had uterine disease ever since, and has been sterile. She missed the menstrual period in November, and on December 7th called to see her physician, Dr. George W. Griffiths. Her complaints were of general abdominal pain and discomfort. She

again called on Dr. Griffiths December 11th. On the 13th, two days later, she had a violent paroxysm of pelvic pain localized on the right side. Dr. Griffiths saw her soon afterward and administered a dose of morphia. She was relieved for the time. On the evening of the 18th Dr. Griffiths summoned me to meet him in consultation, and expressed the belief that abdominal section was indicated. The abdomen was swollen and tender with increasing peritonitis. There was a bloody flow from the uterus. The patient was pallid as from *post-partum* hemorrhage. Vaginal examination showed the uterus pushed to the left side and the pelvis choked with effusion. The pulse was 134, small, the pulse of hemorrhage. The bowels had not acted for four days. We gave an energetic purgative, and arranged for operation the following morning.

Early on the morning of the 19th I opened the abdomen. Dr. J. W. Guest gave ether and Dr. Griffiths assisting. On opening the peritoneum a large quantity of blood flowed out over the table. More than a gallon of blood-clot was removed. The fetal ball was on the right side. The right appendage was tied off close to the uterus, the cavity irrigated with warm distilled water, a glass drainage-tube placed, and the abdomen closed. When put on the table the pulse was 140 and quite feeble. The appendage on the opposite side was not removed, as I feared to prolong the operation. The operation was concluded in thirty minutes.

The specimen is of great interest. You will recognize here the ovary, and here the ruptured fallopian tube and the fetal envelopes. From this poured the fearful hemorrhage, which invariably ends in death if not arrested by surgical interference.

This is the first case of extra-uterine pregnancy, so far as I can learn, operated upon in Louisville by abdominal section at the time of rupture. The success of the case is due to Dr. Griffiths' recognition of the gravity of the situation, and advice for immediate operation.

Ectopic gestation is a very common accident. Hundreds of women perish annually from this cause because it is not recognized. Dr. Formad, the well-known pathologist of

the University of Pennsylvania, as coroner's physician for Philadelphia, states that in one year he found *post-mortem* nineteen cases of ruptured ectopic pregnancy unrecognized. The symptoms are those of shock, internal hemorrhage and peritonitis. The patients exhibit a history of sterility and peri-uterine inflammation. The fertilization of the ovum in the fallopian tube is due to a desquamated salpingitis by which the lining of the tube is deprived of its ciliary epithelium. Extra-uterine pregnancy is almost invariably tubal. The tube ruptures about the twelfth week. It may rupture through the free surface of the periphery of the tube directly into the peritoneum, as in the specimen here presented. This is a deadly accident, if the hemorrhage is not arrested by surgical means. The rupture may occur in the portion of the tube included between the folds of the broad ligament, allowing the fetal structures to escape into the cavity of the broad ligament. These latter are the cases of extra-uterine pregnancy which go on to a viable period. Extra-uterine pregnancy until very recently was not understood in its pathology, and was classified and treated as accidental hemorrhage, hematocele, etc. It is now well known that most cases of hematocele so-called, are in reality cases of ectopic pregnancy. The treatment in all cases should be immediate abdominal section. The uterine appendages of both sides should be removed, inasmuch as the predisposing salpingitis is symmetrical. I have now operated in three cases within the last two years for ruptured tubal pregnancy, and all have recovered. The only safety in such a condition is immediate operation. The diagnosis before rupture is practically impossible. When rupture occurs the indications for surgical interference are as positive as in treating a wound of the brachial artery.

Dr. Geo. W. Griffiths: I can add very little to the history as already detailed. As soon as the symptoms of shock and hemorrhage appeared I advised operation. I have witnessed a great many bloody operations, and in my work as a railroad surgeon have seen many severe accidents, but I must say that when the abdomen was opened in this case and the blood gushed out it was the most formidable opera-

tion I have ever seen. I saw the patient to-day and she is entirely healed and well, though she is pale from the severe loss of blood. She went out to the table and ate with the family to-day for the first time, three weeks after the operation.

Dr. I. N. Bloom: Had the symptoms been more pronounced the night you first saw her would you not have operated immediately?

Dr. McMurtry: Operation would have been immediately done had the diagnosis been absolutely positive. That is, of course, impossible before the abdomen is opened.

Dr. John A. Ouchterlony: I do not know when I have seen a specimen and heard a report so interesting and of such great practical importance as this. It brings vividly to my mind a number of cases I have seen during the past thirty years, which were diagnosed by myself and others with whom I was associated as pelvic hematocele, and at the same time there was always something inadequate in the diagnosis, and it seemed incomprehensible why there should be such a terrific hemorrhage and such a profound shock. It is a great satisfaction to know that light has been shed upon this important and perilous condition, and that we can predicate accurately the pathological condition. Cases that formerly were considered to be cases of hematocele are now known to be ruptured ectopic pregnancy. A most pleasant reflection is the fact that these cases can be so successfully managed by prompt surgical interference. It gives confidence and hope to the medical attendant, and it is a warning, and a solemn one, to lose no time in adopting the prompt course of procedure taken in the case just reported.

Dr. F. C. Leber: Many cases of hematocele recover by absorption, without operative interference.

Dr. McMurtry: When rupture occurs through the free surface of the tube it is a deadly accident from hemorrhage, unless treated by surgical means. If the rupture, however, takes place into the folds of the broad ligament the effusion may become absorbed, or the fetus may develop there, forming abdominal pregnancy and going on to and beyond full term. The effusion may break down and



suppurate, discharging through the rectum or the bladder. In any contingency the safest result is secured by abdominal section. There is less danger in abdominal section according to modern methods than by taking the risk of these several terminations.

Dr. T. P. Satterwhite: It is the first specimen of the kind I have ever seen. I agree with the essayist that it is an exceedingly difficult matter to diagnose absolutely that condition of things. In several cases which I have seen with Dr. McMurtry, I considered his advice to open the abdomen unwise, but in every instance have been convinced that it was the correct course to pursue.

Dr. Leber: I was asked to see a young man who was injured out West. It was a case of crushed foot. When he arrived at his home in Louisville he had been treated for three weeks. The foot was in a very bad condition and I advised amputation above the ankle-joint. This was refused, and the case was treated by another physician. I was again asked to see him, and again suggested amputation, which was refused. I report this case to say that in my opinion in all such cases amputation should be done above the ankle-joint. In my opinion Chopart's amputation has never been satisfactory. I recall to mind a case left in my care by the late Dr. Cowling in which Chopart's amputation was done. It left a miserable pointed stump. I treated it for months with various devices, but never succeeded in getting a good stump. I was compelled finally to amputate. My experience during the late civil war convinced me that none of these operations below the ankle gave such good results as amputating above the ankle.

Dr. J. W. Guest (by invitation): I had two cases of this description in the hospital. Both healed by primary union and were discharged at the end of one month. It seems to me that in doing Chopart's amputation you save the ankle-joint as a natural joint, which is better than an artificial one. At each of these operations tenotomy was performed to prevent the stump from pointing. My experience with Chopart's amputation has confirmed that operation in my confidence. It gives a good

solid base for a foot independent of any artificial foot.

Dr. I. N. Bloom: I wish to make a report of a case, although one case can not determine the method of treatment for a given disease. I recently had a case of sweating of the feet. The means I employed in this case were very simple. I had the patient to bathe the feet in a solution of bichloride of mercury, 1 to 1,000, morning and evening. After rubbing the surface carefully so as to remove the dead epidermis macerated by the sweat, I directed the following course, which is partly though not wholly original. I had a plaster sole, partly soaked in a bichloride solution put in the shoe, the solution being 1 to 1,000. After drying the sole and placing it in the shoe, I sprinkled it with powdered boric acid. As regards the advantage of this method of treatment there is much diversity of opinion. In this case the result was quite satisfactory. If this treatment were uniformly successful it would point to a micro-organismic origin for the disease rather than a neurological. My experience has been too short to determine, but this I know, that in many cases, especially of the lighter forms, it is of nervous origin. I have always found it much easier to cure simple hyperidrosis of the feet than of the hands, and have found that Hebra's method with diachylon ointment is the only one promising any hopes of success. I have tried many other means recommended by worthy men, but always had to return to the diachylon. The inconvenience of this latter method is great, but patients bear it, or will bear any treatment that will help to get rid of the disagreeable disease. This is especially true of women.

Dr. Wm. Cheatham: I have seen recently three cases of congenital pharyngeal fistula. They all opened on the left side of the larynx. Colored fluid, such as the methyl-violet solution injected into the fistula passes into the pharynx; a peculiar viscid fluid, with air bubbles, escapes when pressure is made on the tract. These cases are very difficult to heal, as the course of the fistula is so sinuous, and the healing must commence at the pharyngeal end; the best method to close them is by the galvano-cautery wire.

## MEETING OF JANUARY 27, 1891.

Dr. J. A. Ouchterlony exhibited a patient, with the following remarks: The history of the case is this. The young gentleman is about eighteen years of age. A year and a half ago he began to fail in health. He came under the treatment of a gentleman who regarded the case as one of asthma. The result was that he did not improve, but continued to grow worse. He was under this doctor probably three months. Then he fell into the hands of a very careful physician, who treated him a while and did him a great deal of good. Still the disease went on. I do not know whether it was recognized by the second physician or not. Afterward he was put under the Blair treatment for catarrh, and from the Blair establishment he came to me about the middle of October last.

I found him with somewhat quickened breathing and pulse, temperature slightly elevated at midday, and unmistakable evidence of consolidation and incipient softening. He had lost flesh very considerably, coughed a good deal, had night-sweats occasionally, and in the afternoon his hands became hot and burning. I had Mr. J. A. Flexner to examine his sputum, who found it loaded with tubercle bacilli.

While abroad this summer, I came across an article written by Dr. O. Tostensen, in Sweden, who devotes himself to the treatment of pulmonary affections. He announces that for the last two years he had been in the habit of using subcutaneous injections in cases of tuberculosis. He employed a 5-gram injection, also a smaller one of 1 gram. When he made use of the 5-gram, he would make injections every other day or twice a week; but when he used one half that size he resorted to injections every day or every other day. He always used the injection between the shoulders and on the sides, and always injected the fluid deep, not in the thickness of the skin, but would pinch up the skin and throw it right into the subcutaneous cellular tissue. A little pain is occasioned, and often some redness and swelling, but if the syringe is kept well disinfected, no abscesses follow. The formula used is the following:

Acidum carbonicum nigrum	10
Menthol	5
Vaselinum liquidum	5
Oleum olivarum steriliz.	20
Sol. bals. Peruv. 20 in petroleum benz-	
natum, 10.	

M. S. One half to a five-gram syringed two or three times a week.

Now I began to use this solution, and although I have made some forty injections in this case I have never had a single abscess. It has been painful, but the swelling would pass away and the pain still more quickly. I have gone all around the chest. Under this treatment fever disappeared, pulse and breathing became slower, and eight pounds were gained in flesh. I regret very much to say that I have not had time to have the sputum examined today, but shall have it done very speedily and will report progress to the Society.

We have used the treatment at the University clinic, but without very marked results; because patients would not come regularly, and they were of a class whose hygienic surroundings were exceedingly poor.

The young gentleman recently went through an attack of acute bronchitis, undoubtedly due to taking cold, and recovered without any difficulty as readily as if it had occurred in a person entirely free from tuberculosis. The dullness has diminished in extent and degree, and pain in the chest has disappeared. No râles can be heard at present. The only internal medication he had was arsenious acid gr. 1.30 three times daily.

Dr. W. H. Wathen: At Johns Hopkins Hospital recently, where they were using the Koch lymph, I noticed that after each injection in a very short while the temperature ran up to 103° and 104°, showing marked general reaction from the use of it. They had the sphygmographic tracings that showed exactly how it affected the heart's action. This effect was so marked that it demonstrated positively that this lymph ought not to be used in any patient except under close observation.

Dr. L. S. McMurtry: I think the report is very interesting and instructive, particularly at this time. As I understand it, it is really a constitutional treatment of tuberculosis. The injections, I presume, are introduced with a view to their being absorbed by the blood and



having an elective effect upon tubercle bacilli. And at this particular time, when the attention of the whole world is being turned to that method of treatment, it is particularly interesting. It indicates that there are many lines of treatment which most probably will lead to the same objective point, and shows too, that we have yet to learn much before we get to the conclusion about these modes of treatment.

Dr. Wm. Cheatham: It seems to me that it is a step in the right direction; that we will have to get some substitute for the Koch treatment, on account of the unfavorable reports made of it.

Dr. F. C. Leber: The report was exceedingly interesting, but in my opinion was incomplete, as a correct statement ought to have been made of the condition of the sputum from week to week, as to the number of tubercle bacilli present. Would like to have had the last slide compared with the original slide. The question is, was the benefit derived due to the arsenious acid or the subcutaneous injections? We have all had cases where patients have improved in the incipient state from general treatment without injections of any kind. It was supposed by the best bacteriologists that Koch's lymph was nothing but an extract of the natural tubercle itself, which it turned out to be.

Dr. Peter Guntermann: The report, as far as Dr. Ouchterlony has made it, is very instructive. The report as to the number of bacilli ought to have been given. I was at his office when he made several injections, and it was remarkable that there was not a sign left where former injections had been made.

Dr. L. S. McMurtry: I here present for examination by the Fellows a very large submucous uterine fibroid tumor which I removed a few days since. It is the largest tumor of this class I have ever encountered, being quite as large as a child's head at full term. The tumor had been expelled from the uterine cavity and occupied the vagina, with severe distension and pressure on adjacent organs. The pedicle was very large and was intra-uterine. The lady was thirty-eight years of age. By continuous hemorrhage she was greatly reduced and exsanguinated.

In consequence of the immensity of the tumor I was compelled to remove it by sections, instead of *en masse*, in order to avoid tearing the perineum. I placed the wire of a *serrenœud* around the pedicle and cut away the tumor. My friends, Drs. Griffiths and Vance, were present at the operation, and the former suggested division of the pedicle by the wire at one sitting, but I was afraid to do so. On the day after the operation, in tightening the wire, it broke, and a fearful hemorrhage resulted. The hemorrhage was very fierce and its effect was immediate upon the patient's expression. Seizing her as she lay in bed, I placed her on a table, retracted the perineum with Sims' speculum, and clamped the bleeding pedicle. Within a minute's time the bed and floor were saturated with blood. It was like *post-partum* hemorrhage. The patient is making an easy recovery.

I report the case, not only on account of the magnitude of the tumor, but particularly to warn against the dangers of hemorrhage when treated as commonly directed by authors, viz., to divide the pedicle with the wire of the *ecraseur* at one sitting.

Dr. Leber: I have a specimen of a tumor of this kind in my possession, removed several years ago, which is larger than the one just presented. I was called to the patient by a medical friend, and found the tumor in the vagina. I believe these tumors are expelled from the uterus when comparatively small, and grow to large size in the vagina. I do not believe the danger from hemorrhage is so great as the injury to the womb. Very often a segment of the uterine tissue is included in the *ecraseur* and injury done in that way.

Dr. J. M. Mathews: It has occurred to me that we meet with these polyps in the rectum; in the last two or three weeks I have removed two, but the largest I have removed was about the size of a hen's egg. The other was a soft polyp about half that size. It comes into my mind, why is it we do not have larger polyps in the rectum. The capacity is very great, and it is the same class of fibrous polyp, but they are not often met with larger than I have mentioned. Hemorrhage is the danger in polyps

of the rectum, especially where the pedicle sloughs.

Dr. Guntermann: Last fall a year ago, when on my regular visit to the country, I met a woman who had been a patient of mine when I was practicing in the country. She had been and was under the treatment of several physicians, who had examined her, but she was bleeding all day, and every day, and had been for a year. She was near where I made my stay and requested me to see her, and on account of her having been an old patient I did so. On examination I found a little polypus about the size of a hen's egg, resting in the os. I could feel it very well. As I had no means of removing it, I requested her to come to Louisville, or I would go down and remove it. In the mean time I gave her some fluid extract of ergot, which she took in teaspoonful doses two or three times a day. The first notice I had from her she sent me the polypus, which had come away of itself.

Dr. T. P. Satterwhite: In all operations of this kind the physician should be prepared for hemorrhage. I assisted Dr. Geo. W. Griffiths in removing one; after it was taken away with forceps it was as large as a child's head. There was no hemorrhage following.

Dr. Cheatham exhibited a specimen of polypus of the esophagus, with the following remarks: An old gentleman seventy-nine years of age came to see me, saying for twelve years he had had something growing in his throat. Three years ago in vomiting he ejected it and caught it in his teeth, and went to Dr. Yandell, who removed it. He came to me saying it had returned; I tried with my finger to vomit him, but failed. I then tried the horse-hair bougie, but failed to get the growth up. I endeavored to use the esophagoscope, but his neck was too stiff and I could not introduce it. Yesterday he came to the office with a lot of sulphate of zinc and a large twine cord, and wanted to take the zinc and vomit to eject the growth, and tie the cord around it. We gave him 25 grains of sulphate of zinc with warm water, but it failed to act promptly. I then gave him hypodermically apomorphia gr.  $\frac{1}{6}$ , which acted promptly, throwing the growth into the mouth where it was caught with a vulsellum. The

wire of a Jarvis snare was passed over the vulsellum and growth, and pushed well down, so as to get as close as possible to the base of the polyp; it was cut off with but little difficulty. The polyp measured 5 inches in length, 1 inch in diameter, and was almost cylindrical. Close to where the wire cut through there was a considerable constriction. Mucous polyps of the esophagus are very rare.

Dr. L. S. McMurtry: This report is exceedingly interesting. It is the first specimen of the kind I have ever seen. It illustrates incidentally what a valuable agent apomorphia is in securing prompt emesis. I would ask Dr. Cheatham his opinion as to the recurrence of this growth.

Dr. Cheatham: It is very apt to recur.

Dr. W. H. Wathen: About a month ago a lady from central Kentucky consulted me about an enlargement of the abdomen. She had a large fibroid tumor of the uterus that had probably existed for several years, but had caused no serious trouble until fifteen months before I saw her. Since then she has had excessive hemorrhage at each menstrual period, has suffered greatly from pelvic pressure, and lost twenty-five pounds in flesh. The indications justified hysterectomy to relieve symptoms and save life. As I expected to go east in a few days to stay two weeks with my medical friends in New York, Philadelphia, and Baltimore, I requested her to return to the city upon the receipt of a telegram from me. On the morning of the 19th of this month she came to St. Joseph's Infirmary in a hurry to have the operation performed, and on the afternoon of the 20th an hysterectomy was done, and the uterus with a ten-pound tumor removed. The operation was completed in thirty minutes. The broad ligaments were tied off, the pedicle was secured by the *nud* and pins, the abdomen carefully cleansed, and the peritoneum stitched to the pedicle or neck of the uterus. She had no shock, and no untoward symptoms until seventy-two hours after, when her pulse became rapid and she could not retain any thing in her stomach. Her pulse finally reached 150 per minute, but her temperature was never above 100°. In a hundred and ten hours she died, apparently from septic infection; but



as she had comparatively no fever, death may have been caused by intestinal obstruction from paresis of the bowels. Cases of this sort have been reported where no cultures could be made from the peritoneum or its secretions. She could not retain salines, and I gave her one grain of calomel every hour, but neither gas nor fecal matter would pass. If death was caused by septic infection, the point I wish to especially emphasize is the difficulty in excluding septic matter in operations involving the peritoneum. This is the only case of septic infection I have had in my laparotomies in eighteen months, and the surrounding conditions were never apparently more favorable, and I have never been more careful. The instruments and sponges were carefully cleansed in boiled water, and neither my nurse nor myself had been exposed to septic influences. The untimely death of this woman has so impressed me with the necessity of absolute surgical cleanliness in laparotomy work, and of my moral and professional responsibility, that I have had prepared a room in an addition to one of our infirmaries for such operations, with all modern aseptic appliances and conveniences, such as plate-glass-top tables, porcelain-lined pans, sterilizer, etc.

L. S. M'MURTRY, M. D.,  
Secretary.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The dangerous properties of Dr. Koch's lymph will be removed in future, thanks to the researches of one of the professor's assistants. Dr. Weyl has discovered a means of detecting the poisonous elements pointed out by Prof. Virchow, and can eliminate them by a process of his own invention. Dr. Koch himself is now at Cairo, out of the way of the controversy over the "tuberculine."

Convinced that a little knowledge of ambulance work is even more important aboard ship than ashore, the Council of the Mercantile Marine Service Association are making a praiseworthy attempt to re-establish at Liverpool the St. John's classes under the direction of Dr.

McPherson. Seeing how often sea officers are called on to deal with accidents and diseases far from regular medical aid, it is obviously desirable that they should have some practical knowledge of this sort, but unfortunately up to the present the classes are said to have been attended almost exclusively by elderly men. These veterans have shown themselves, according to the statement of Capt. Miller, commanding the Conway, both zealous and apt scholars; but it is suggested that ship owners might do worse than order their young officers to attend and qualify for the first aid to the wounded.

Sir Spencer Wells, in delivering the Bradshaw Lecture at the Royal College of Surgeons, literally threw light upon the subject of the deleterious effects of fog and smoke on human lungs. The eminent specialist revealed a magnified picture of the damage wrought to the tonsils of a dog by breathing such an atmosphere as that in which Londoners have been compelled to exist of late. The particles of noxious matter inhaled, with the mist and smoke-laden air, were depicted as having formed into clots of something like vegetable charcoal, and thus there was given quite a new reading to the old phrase that "such weather is not fit to turn a dog into." For dog read man, woman, and child, and the moral will apply. Sir Spencer Wells also showed by the oxyhydrogen light the forms of some of Pasteur's insidious bacteria or microbes.

Mr. Treves contends that the medical treatment of cases of typhlitis is on the whole remarkably successful, and that any proposal to treat all cases by operation would lead to disaster. His experience is that at the London Hospital nearly all cases of typhlitis under ordinary medical treatment recover, and consequently he thinks that it might be as well to return to the days before the "epidemic" of removing the appendix had set in. Speaking at the meeting of the Clinical Society of London, Mr. Treves said many of the cases of cecitis were very acute at first; in young cases especially the inflamed appendix could be felt per rectum. There was frequently much reflex pain in the groin, testicle, and labium from the pressure on the ureter. Early interference with typhlitis was bad, and the modern practice of

running needles in had led to serious disaster. As a rule, no cases should be operated upon before the fifth day, for cases of death on the third or even the fourth day were almost unknown. At the present time every museum was crowded with appendices, and soon he should expect that the human being, following the law of heredity, would be born without an appendix. In all *post-mortem* examinations an appreciable percentage of cases was found in which at some time during life there had been inflammation of the appendix, from which the subject usually recovered. When an abscess had formed it should be opened through the skin directly over it and the pus evacuated directly. The peritoneum should not be opened first and the pus allowed to drain away through the peritoneum. In the case of an abscess around the appendix he advised that a free incision be made, the pus evacuated, and only the shortest possible search be made for the appendix in the depths of the abscess. He had frequently seen the appendix at the bottom of an abscess covered with lymph; he had left it and seen no harm result from the procedure. The best way of dealing with such an appendix was, he considered, to attach the stump of it to a prominent piece of peritoneum.

Bromoform has been given in whooping cough with satisfactory results. In Berlin one hundred children, varying in age from eight weeks to seven years, were treated with it. The doses given in London were two to five drops three times a day with a spoonful of water. Bromoform has to be kept from the light, otherwise it is liable to become decomposed. As a rule, good effects have been observed on the second or third day, the vomiting being arrested within a week. In a very few cases the drug has produced sleepiness and lassitude, and in one case (a very young child) a comatose condition was induced, the dose being too large; this case was revived by subcutaneous injection of ether. In cases where complications such as pneumonia have occurred they ran a favorable course, and where there were relapses a return to the bromoform soon arrested the symptoms.

A coroner's jury in Birmingham has directed attention to the terrible frequency of death

from burning among little children in that town. According to a statement of the house-surgeon of the Birmingham General Hospital, there were admitted into that institution last year no fewer than one hundred and fifty-one such cases, resulting in forty deaths, thirty-seven of which were children under ten years of age. As might be expected, it is in the winter months, when fires are most in request, that these fatalities chiefly occur. The experience of the hospital shows that adult persons suffering from burns nearly all recover. Fire guards are recommended, but, as the coroner pointed out, there are fire guards which are really a snare. These have horizontal bars, which tempt the children to climb up them.

A charge of manslaughter was heard against a midwife at the Central Criminal Court during the month. The charge arose out of the death from puerperal fever of a woman attended by this midwife. About a month previously she had attended two other cases which had died of puerperal fever. After hearing evidence from the medical men who had attended the cases, Mr. T. Bond, who had made a *post-mortem* examination in the case out of which the charge arose, and the coroner, the jury stopped the case and found the prisoner not guilty.

A highly successful dinner, attended by about eighty representatives of the medical profession in Cambridge and the adjoining counties, took place recently in the hall of Downing College, Cambridge, in honor of Sir George Murray Humphry, Professor of Surgery in the University of Cambridge. In reply to the toast of his health Sir George said it was due to his friend Sir James Paget that he came to Cambridge as a young man. Soon after he was qualified Sir James sent for him and told him there was an opening for a surgeon at the university. He had never had occasion to regret his final decision to try his fortunes on the banks of the Cam. The Cambridge Medical Graduates Club have now invited Sir George to a congratulatory dinner to be held in London, at which Mr. Jonathan Hutchinson is expected to preside.

A medical man recently noted in a case of whooping cough under his care that almost im-



mediately after vaccination there was a striking relief of the patient, and this led him to test the action of the vaccine virus in five extremely severe cases, four of which threatened the lives of the sufferers. All were at once vaccinated, and after the febrile symptoms of the vaccination had subsided the improvement was manifest. The coughing almost entirely disappeared, and was then simply of a catarrhal character. After eight or ten days it ceased completely. During the existence of the vaccine disease the patients were treated with inhalations of one-per-cent carbolic acid solution.

Phosphoric acid in the treatment of ulcers has found favor in some quarters, a ten-per-cent solution of pure phosphoric acid in distilled water being used. The ulcer is covered with lint steeped in this solution, and the dressing is renewed three or four times a day. The treatment is said to be very successful in scrofulous ulcers.

Hemostatic properties are attributed to cocaine by an anonymous writer, who found that in subcutaneous injections where the hydrochloride of cocaine was used less blood issued than when it was not used.

LONDON, February, 1891.

## Abstracts and Selections.

KRECKE ON THE SURGICAL TREATMENT OF CIRCUMSCRIBED AND GENERAL PERITONITIS STARTING FROM THE VERMIFORM APPENDIX.—The affection of the appendix leading to peritonitis is its perforation. This produces diverse phenomena according as it occurs suddenly or gradually. When it develops very slowly the neighboring peritoneal surfaces have sufficient time to unite, and by the great tendency to such adhesions only a circumscribed peritonitis then results. When, however, the perforation is sudden and the material passes into the free abdominal cavity, general peritonitis is the unavoidable sequence. But as the various types of peritonitis are more carefully distinguished it is found that that from perforation of the appendix differs from that following perforation of other portions of the intestine. Almost without exception the patients have previously been in the enjoyment of perfect health. As their physical powers are unimpaired they are in better condition to tolerate operative procedures than if exhausted by long

sickness. A further peculiarity is due to the anatomical relations of the appendix. When there is a perforation in any part of the small intestine the continuous peristaltic suffices to distribute the intestinal contents over the whole peritoneum. The vermiform can not make such large excursions as a loop of the small intestine, or even as the stomach, and hence at first the extruded material infects only adjacent parts of the peritoneum. Besides it is evident that from this little appendix there can never come as much infectious material as from the gut itself. The fact that at no other point in the abdomen does circumscribed peritonitis so frequently occur as just here agrees with this view. The until recently accepted treatment of vermiform perforation with opiates was based on these naturally favoring conditions.

And nowhere are the two forms of peritonitis distinguished by Mikulicz (v. *Annals*, October, 1889, p. 289-292) of greater practical significance than in diseases of the vermiform. Where the whole abdominal cavity is immediately flooded with intestinal contents there arises what he calls diffuse septic peritonitis. Where, however, at first only the neighboring peritoneum is infected, the resulting local exudation develops successively new also encapsulated collections of pus, hence his designation progressive (progredient) fibro-purulent peritonitis. As a third point distinguishing vermiform peritonitis it may be mentioned that its diagnosis can frequently be made with far greater certainty than that of any other form. Besides the usual peritoneal symptoms, the pain at the start as well as during the further course is often especially intense in the right iliac fossa; then, if the patient be a child, a diagnostic indication is given by the fact that in children these troubles very commonly start from the vermiform.

Of the three points, the last gives us with some assurance the seat of the perforation, while the other two are only theoretically of interest as indicating that operative interference has here far better promise of success than in perforation of other parts of the intestine. However, any collection of cases with regard simply to favorable or unfavorable result can not settle the question of operation, as so much depends on the stage of the disease at the time. The cases that have been operated, not only in Germany, but especially in America and in England, are hence but briefly recapitulated. Two successful cases operated at Erlangen, in the summer of 1889 (one by Prof. Heineke, the other by Krecke) are very fully described.

CASE 1. A girl, aged nine years. For three weeks pain in abdomen, loss of appetite, diar-

reha. For the last three days attacks also of pain spreading across the whole belly. Slight ileo-cecal dullness; vomiting. Some improvement for two days, then sudden terrific pain in the ileo-cecal region, spreading over the abdomen; great distension and tenderness; no hepatic dullness; fever; collapse. Slight improvement. Operation the next day. Incision through edematous tissues, as for ligation of common iliac. In opening the peritoneum a quantity of stinking, putrid fluid mixed with gas was discharged.

The peritoneum was everywhere darkly injected and fibro-purulently coated; intestinal loops much inflated. The thickened dark-red vermiform showed anteriorly a nickel-sized perforation with gangrenous border. This was doubly tied close to the cecum, severed and extirpated. In a loop of small intestine and in one of the large also, a one and one half to two centimeters long opening was made for the discharge of contents, including gas, after which both were again closed with double rows of sutures. Hasty wiping of peritoneum; no irrigation; reposition of bowel; moss-cushion dressing. The patient now appeared dying, but in an hour had reacted. For the next eight days there was but slight fever and little secretion. Then came a quantity of putrid secretion from a large cavity in the small pelvis. In this cavity was found the open stump of the vermiform; this time it was carefully closed with a double row of sutures. Deep in the cavity was found a hole in the peritoneum from which the vaginal wall could be reached; boric irrigation; iodoform tampon. Two days later another large quantity of putrid fluid was discharged, containing a pea-sized enterolith; irrigation with thymol. Meanwhile the child was visibly losing flesh and strength; excessive wasting, no appetite. Just two weeks after the operation there was found a double perforation of a presenting loop of intestine. The increasing fecal discharge soon necessitated repeated bathing daily. Nearly two months after operation some general improvement in her condition first became noticeable, despite continued fever, suppuration, and fecal discharge. However, matters had so far mended in all respects that she was discharged about four months p. o. There was still a suppurating sinus into the pelvis, and limited fecal mixture in the secretion.

**CASE 2.** Healthy boy, aged six years. Sudden bowel trouble (diarrhea, etc.) without pain. Sudden syncope four days later, then excessive pain in right side of belly with some distension. Some dullness in right iliac fossa only. Operated two days later, as in Case 1. Discharge abundant of pus, but without feces. Vermiform

perforated anteriorly, with an enterolith in the opening. Double ligation and extirpation, though somewhat adherent; double suture of stump. The more distant intestines were only much injected; no further collection of pus was found; cleansing of the cavity; tampon of iodoform gauze; upper part of wound sewed up to retain the bowel. Further course to recovery presented little interruption. Discharged twenty-five days p. o., with a granulating wound that soon healed. Later a diastasis of wall beneath the cicatrix demanded a belly-band.

These two cases represent respectively Mikulicz's two forms of peritonitis mentioned above. One (Case 2) is a further evidence that meteorism without free gas may obscure the liver dullness. The preceding symptoms of a sharp intestinal catarrh are in each case attributable to the irritation of the developing perforation. The first case corroborates Reichel's recent conclusion against too much cleansing and flushing of the abdominal cavity. Drainage with iodoform gauze for a few days was satisfactory.

The remainder of the article is largely devoted to the question; "Is local peritonitis proceeding from gradual ulceration resp. perforation to be considered as a surgical disease?" The pathology must first be considered. The idea of a paratyphlitis is no longer considered tenable. As perforation of the cecum is extremely rare, it follows that perityphlitis is practically identical with circumscribed peritonitis starting from the vermiform. He takes the stand that in nearly if not quite all those cases, and certainly in all where there is perforation, there is a collection of pus. Hence, whether we shall operate in the absence of sure symptoms of suppuration, especially fluctuation, depends on the question when shall we diagnosticate perityphlitis. In this connection he gives the case of one of the assistant-staff, operated by Krecke seventeen days after onset of the perityphlitic symptoms (ileo-cecal pain and relative dullness, fever, etc.). Incision, with discharge of pus. Drainage. Complete cure.

In questionable cases even it is much safer to make an exploratory incision than risk the danger of delay. In hospitals, as shown by a new case, an opening in the direction of the supposed pus may be made, and if necessary be kept open until more perfect localization or rupture of the pus into the wound has occurred; but in private practice this is better replaced by permissible exploratory puncture.—*Annals of Surgery.*

**BROKEN NEEDLES AND SUITS FOR MALPRACTICE.**—Not long ago I casually heard that a skillful surgeon in a distant city was about to



be sued for \$10,000 damages, because it was accidentally discovered by another physician that the former had left a piece of broken needle in a perineum which he had repaired.

I accordingly wrote to this brother in distress that if my evidence could help him out of his difficulty I should be glad to furnish it, for I had more than once left at least half of a needle in the cervix, and at another time fully an inch of a large needle in the perineum. These patients are perfectly well, and to this day do not know that they are carrying portions of surgical instruments in their bodies. I also recalled to him the fact that many hysterical girls have with impunity converted themselves into human pin-cushions by swallowing innumerable needles, which have traveled all over the body and been extracted at places very remote from the stomach. I presume there is not a surgeon who has not broken needles and left a fragment in his patient's body, without the slightest mischief accruing. When one can tie, as many have, the pedicle of an ovarian or uterine tumor with iron or silver wire and drop it into the abdominal cavity to remain there until doomsday; or when we get broken bones to knit by uniting them with strong iron wire; or when one can leave for weeks, as I have done in chronic peritonitis, a glass drainage-tube in the highly sensitive and vulnerable abdominal cavity, surely a needle in the cervix or one in the perineum can do no more harm than an earring.

But these attempts to prosecute a physician on the slightest provocation have made me very cautious. For instance, I never perform an oöphorectomy without explaining, in the presence of competent witnesses, why I wish to perform the operation and what will be its results. A very unfortunate English physician neglected this precaution, and as the result lost money, health, and an enviable hospital appointment, although he won finally at the end of a protracted, expensive, and most worrying suit at law. The husband complained that his wife was unsexed; the wife, that she was not told what the nature of the operation was to be; the narrow-minded directors of the hospital, that the surgeon had operated without calling in counsel.

Let me give you one of my experiences: Not many years ago, one bitter cold day in winter, a poor man came to my office from a town several miles distant, in a neighboring State, begging me to come to the aid of his wife, who had been long in labor and could not be delivered. It was in the midst of my office hours, the weather was very cold, the fee offered was not a tempting one, and I requested him to go for some one else. But he begged so hard

that for humanity's sake I could not refuse. When I got there I found that his wife had a shoulder presentation, and had been attended by four physicians, who each in turn had tried in vain to turn the child and deliver her. They were all present, and as the question of embryotomy had come up, they had sent for me. The woman was much exhausted, and we all felt that her only chance lay in a speedy delivery. She had been kept more or less under ether for hours, and a little more was now given her. Knowing that the womb had molded itself to all the irregularities of the child, which molding had prevented version, I concluded to try a wrinkle of an old French accoucheur, whose name I have forgotten. It was this: I caught hold of the hand of the shoulder which did not present and made traction on it. This maneuver turned the child over on its long axis and extricated its body from the uterine mold which had "set" around it like a cast of plaster. I was then able very readily to make podalic version and to deliver the body as far as the head. But here an unexpected difficulty occurred, one which I have never met with before or since. The long irritated cervix of the lower zone of the womb closed like an iron collar around the neck of the child and imprisoned the head. While I was trying to release it the woman suddenly and unexpectedly died. All this occurred within a very few minutes.

I shall not describe the scene that followed; it was a very painful one. My only consolation was that I had done my duty. Now, would you believe it! A few days afterward each one of the physicians present, including myself, was notified that a suit for malpractice had been instituted against him. I put my case in the hands of a lawyer, who gave me a letter to a leading citizen of that town asking him to stand bail for me in case I should be arrested, as I might be at any time when called there on a professional consultation. For, of course, the plaintiff would be only too glad to arrest me and try me in his own State. For months I carried this letter in my pocket, but I never had to use it, for when the matter came to the pinch we all showed such fight that the case was abandoned. This is the second time that I have been threatened with a prosecution for alleged malpractice; but in the former I also more than met the plaintiff, and that case was abandoned.

In this relation let me tell you what I read in the daily papers the other day, showing how careful we all should be to surround ourselves by safeguards. A physician in Belgium in a case of necrosis of the leg of a child warmly advocated excision of the dead bone. The mother said she would give her consent as soon

as the grandmother was willing, but it took the old lady exactly one year to make up her mind. Her consent being obtained, the child was etherized and the diseased bone laid bare; but it was then found that the necrosis had proceeded so far during the year that it was impossible to save the limb. Accordingly the surgeon assumed the responsibility of amputating the leg. He was sued by the father and had to pay him 10,000 francs for damages.

In this country surgeons of note were often prosecuted for the unavoidable shortening of fractured long bones, especially of the thighs, during the process of repair. Indeed, if I am not in error, even the late Professor Samuel D. Gross, with all his reputation, had to stand a suit for malpractice. But this is becoming more and more rare, because the community is getting more and more intelligent. The practical lesson that I wish to impress upon you all by citing these examples is simply this: That if the public presumes to attack the professional characters of men who are your medical teachers, how careful you should be in all important cases to guard yourselves by calling in older and more experienced advice, and by getting the responsibility shared.

Again, never say there is absolutely no danger whatever in any operation or in any surgical procedure. On this point, some years ago I got a bitter lesson: I was asked by a patient upon whom I was about to operate at one sitting for a laceration of both the cervix and the perineum, whether there was any danger to be feared from the ether. I laughed her to scorn, and called it the child's play of the operation. But mark the result: both operations were performed, and very satisfactorily too, but as the lady emerged from ether narcosis incessant vomiting set in, which could not be controlled by any means known to me, or to a consultant whom I called in. On the fifth day she died from heart-failure, from this very etherization from which I said there was no danger. Therefore I now never tell a patient that there is no danger whatever in any operation.

So take this lesson home with you to-day: Never to promise too much to your patients; for, as you are not sure what the day will bring forth, you certainly never can be sure what an operation may bring forth.—*Dr. Wm. Goodell, College and Clinical Record.*

**RENAL TORPIDITY.**—Although the medical profession and the laity have been accustomed to ascribe many disagreeable symptoms to what has been called "torpidity of the liver," or "biliousness," very few persons have considered as of much importance, or have recognized in any way whatever, a corresponding functional

inactivity of the kidneys. This condition of renal atony has proved to be, in a number of cases which the writer has seen, productive of much distress and minor ill health. If we admit that the kidneys do become temporarily inactive at any time, then their importance as excretory organs at once shows that such a condition must be followed by the retention of effete materials and the development of symptoms of a more or less active character. We are all on the *qui vive* for cardiac disorders from indigestion, or for headache and languor due to hepatic troubles, but if none of these are found to exist we are often at a loss to determine the cause of the ailment.

For a number of months the writer has been much interested in the study of several cases in which the kidneys seemed to be rendered inactive or deranged by disorders of the digestive functions, or in which the digestive functions seemed impaired by primary renal torpidity. In some cases this torpidity consisted not in an inability on the part of the kidneys to carry on ordinary effort, but in a slowness of action when calls beyond their regular duties were laid upon them.

The following instance illustrates those cases in which the digestive disorder seemed to cause not only inactivity of secretion, but, in addition, albuminuria:

C. H., aged three years, female, appears to be perfectly healthy and is usually well nourished. Is not fretful during the day or restless at night, and has a good appetite. Six months ago, while ailing slightly, the parents noticed that the urine was very concentrated and of a very dark color, and sent some of the liquid to a physician to be tested. Examination showed it to be heavily loaded with albumen; a diagnosis of acute or subacute nephritis was made, and proper dietary and medicinal measures resorted to. The amount of albumen in the urine after this attack steadily decreased, and finally, when the case came under my care, the albuminuria was absent and did not appear until some weeks later, when an attack of gastro-intestinal catarrh of a mild type came on, preceded by a few days of constipation, which soon merged into a mucous diarrhea, the passages being very fetid and containing undigested food. Before the child had diarrhea, and while the constipation existed, the urine became concentrated and loaded with albumen. All attempts to check the diarrhea failed so far as permanent cure was concerned, until by the use of alkaline diuretics the urine became clear and almost free from albumen, when the diarrhea also ceased spontaneously. The urine now became normal and remained so until through slight indiscretions in diet the same



symptoms returned on several other occasions.

This case indicates that the kidneys may be, as already stated, capable of doing ordinary work, but fail, if by disturbances in the system they are required to eliminate any irritating products formed by decomposing food in the alimentary tract.

The next case typifies another form in which the renal torpidity causes a series of unpleasant symptoms, followed by marked disturbances of digestion.

P. H., aged twenty-nine, a male, apparently in perfect health, though much confined to his desk, and without any thing of note in his history as to disease, either in infancy or adult life, suffers from frequent attacks of headache and indigestion. The headache follows a feeling of languor and irritability, which sometimes lasts several days. On the day on which the attack culminates he notices, about 10 o'clock in the morning, a feeling of great sleepiness, while slowness of thought become so marked as to render conversation difficult or actually inaccurate, so far as correct answers to questions are concerned. Sometimes amnesic aphasia is present to a very slight extent. These symptoms are rapidly followed by very severe headache, cold feet, more or less nausea, but no vomiting unless this is provoked by tickling the fauces. If vomiting is produced, however, butyric acid is sometimes present in large amounts.

During this time there is apparently no secretion of urine, but after three or four hours a sensation of fullness about the neck of the bladder comes on, which is partly relieved by the passage of a few drops of concentrated urine, which does not scald the urethra. Soon after this urinary secretion becomes profuse, the headache ceases, and the urine when passed is limpid and of a very low specific gravity, but scalds the urethra very severely. These attacks come on irrespective of diet or manner of living, and are always preceded for several days by the secretion of a concentrated urine of decided odor. Further than this they can always be prevented, if the patient drinks large amounts of Vichy or other diuretic waters as soon as he notices an increased specific gravity of the urine.

This case indicates that we may have renal torpidity which, if overcome by renal stimulants, prevents a train of symptoms which we would commonly call "biliousness," but which calomel will not relieve.

The writer is well aware that he has dealt with symptoms more than diseases, but a certain number of such cases has taught him that a close connection exists between the kidneys

and alimentary canal, and that obscure headaches, loss of appetite, and general *malaise* may often be relieved by alkaline diuretics, such as citrate of potassium or other similar drugs, when tonics, laxatives, and mercurials have been used without result. Pepper and DaCosta have both of them mentioned in their lectures or writings a condition which they have called "renal inadequacy." In such states, however, there is a constant secretion of very small amounts of urine in lieu of the quantity normally passed by a healthy man. Renal torpidity is therefore a different condition.—*Dr. H. A. Hare, University Medical Magazine.*

A NEW OPERATION FOR SPASMODIC WRY NECK; NAMELY, DIVISION OR EXSECTION OF THE NERVES SUPPLYING THE POSTERIOR ROTATOR MUSCLES OF THE HEAD.—About three years ago, in studying carefully a case of spasmodic torticollis with Dr. Mitchell, he asked me, in view of the implication of the posterior muscles of the neck which rotated the head as well as of the sterno-cleido, whether it would not be possible to do an operation for dividing or excising their nerves, similar to neurotomy or neurectomy of the spinal accessory nerve. I made a number of careful dissections to determine the feasibility of the operation, and as a result of it I formulated the steps of an operation which I have repeatedly done to the cadaver, but only once have I had the opportunity of doing it on the living. That case Dr. Dercum, who kindly referred her to me at the woman's hospital for operation, will report fully to the society this evening. I may add that the only difficulty of the operation was the depth of the wound which made it troublesome to get a good light, and therefore the mechanical steps of the operation were sometimes a little difficult. An electric light (which I did not then have) would have facilitated its steps very much.

The hemorrhage was quite free, but easily controllable; the drainage was perfect, and the recovery of the patient from the operation a speedy one. Dr. Dercum will report upon the results so far as the disease is concerned.

*The Anatomy of the Parts Involved in the Operation.* Muscles: The chief posterior cervical muscles that rotate the head are the splenius capitis, the rectus capitis posticus major, and the obliquus inferior, of which the last, though not the largest muscle, has the most favorable leverage. The splenius is supplied by the external branches of the posterior divisions of the second and third cervical nerves. The rectus capitis by the sub-occipital from the first cervical, and the obliquus inferior by the sub-occipital and a branch from the second cervical, be-

fore its division into its external and internal branches.

An important anatomical point in recognizing the muscles and the nerves is the sub-occipital triangle formed by the rectus capitis posticus major and the obliquus superior and inferior. The two oblique muscles which form the superior and inferior border of the triangle run from the tip of the transverse process of the atlas to the spinous process of the axis and to the occipital bone respectively.

•The rectus capitis posticus major, which forms the third or inner border of the sub-occipital triangle, arises from the spine of the axis and is inserted into the inferior curved line of the occipital bone and the space between it and the foramen magnum.

From this triangle emerges the sub-occipital nerve, and in it the vertebral artery is seen, and of course is most carefully to be avoided. This and the occipital artery just below the triangle are the only arteries of importance which are to be considered in the operation.

Nerves: The nerves to be resected are the posterior divisions of the first three cervical nerves. The posterior division of the first cervical sub-occipital nerve supplies the rectus and the two oblique muscles. After escaping from the spinal canal, between the occipital bone and the posterior arch of the atlas, it enters the sub-occipital triangle. Its location in this triangle makes it easy of recognition.

The posterior division of the second cervical just before its bifurcation gives off a small filament to the inferior oblique. It then bifurcates into two branches, the internal and external. The small external branch supplies the splenius.

The larger internal branch (the occipitalis major) pierces the complexus about a half inch from the middle line of the back, and then enters the trapezius muscle.

This nerve, the occipitalis major, will be involved by the section of the posterior division of the second cervical before bifurcation, but inasmuch as this is mostly a cutaneous nerve and supplies only the complexus muscle, the paralysis of which would be a matter of no importance, the whole posterior division of the second cervical may be divided close to its emergence from the spine, and prior to its bifurcation into its external and internal branches. An additional reason is, that the occipitalis major, from its size, is readily found and serves as a guide, whereas the two branches of the second cervical to the inferior oblique and the splenius (the first arising before and the second after the bifurcation of the posterior division into the internal and external branches) are difficult to find.

The posterior division of the third cervical is

much smaller than either of the others, but it is easily found under the complexus about an inch below the occipitalis major. Just after its emergence from the spine it divides into the internal branch, which is cutaneous, and the external, which supplies the splenius and other muscles. It is best to divide the main trunk, as it is more easily found than its branches.

*Operation.* 1. The field of operation having been shaved and disinfected, make a transverse incision about a half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly, or even slightly overlapping the middle. This incision should be two and a half to three inches long.

2. Divide the trapezius transversely.

3. Dissect up to the trapezius and find the occipitalis major nerve as it emerges from the complexus and enters the trapezius. In the complexus is an intra-muscular aponeurosis. The nerve emerges from the complexus at a point between this aponeurosis and the middle line, usually about a half inch below the incision, but sometimes higher up, and then enters the trapezius. It is always a large nerve of the size of a stout piece of catgut, and is easily found if sought for at the right place.

4. Divide the complexus transversely at the level of the nerve. This division should be made by repeated small cuts, so as not to cut the nerve which is our guide; after which dissect the nerve still further down from the anterior surface of the complexus where it arises from the posterior division of the second cervical. Cut, or better, exsect a portion of the posterior division before the occipitalis major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the second cervical.

5. Recognize the inferior oblique muscle by following the sub-occipital nerve toward the spine. The nerve passes immediately below the border of the muscle.

6. Recognize the sub-occipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the sub-occipital close to the occiput. It should be traced down to the spine itself and be divided, or better, exsected. This divides the first cervical.

7. An inch lower down than the occipitalis major, and under the complexus, is the external branch of the posterior division of the third cervical to the splenius. When found it is to be divided or exsected close to the bifurcation of the main trunk. This divides the third cervical.

A drainage-tube and horse-hairs are to be inserted, and as the patient lies on the back, although the wound is very deep, the condition



is most favorable for good drainage. If desired, the posterior muscles can be united by buried sutures, independently of those in the skin. The after-treatment is the same as for ordinary operations.—*Dr. W. W. Keen, Annals of Surgery.*

**STATISTICS OF EXTIRPATION OF THE LARYNX.** The *Centralblatt für Chirurgie*, No. 51, 1890, contains abstracts of two contributions dealing with the extirpation of the larynx—one a published thesis by M. A. Pinconnat, of Paris, the other a paper by Dr. Kraus, in the *Policlinico*, No. 4, 1890. The first mentioned author has collected from different sources 220 cases; 171 of total and 49 of partial removal of the larynx. Of the operations in which the whole of the organ was removed, 154 were performed for carcinoma, 9 for sarcoma, and 8 for other forms of disease. From causes of death common to this and other grave operations, such as hemorrhage and shock, 22 of these cases ended fatally within the period of the first eight days after the removal of the larynx. Thirty-eight patients died in the course of the first three months from affections of the respiratory organs, in most of these instances from pneumonia. One patient died through septic poisoning, another from exhaustion, and two patients sank through inanition. Of the 171 cases of total extirpation, 69 had a fatal ending. Of the 154 cases in which the whole of the larynx was removed for carcinoma, in 83 the patients survived over one month, and in 26 they survived over two months. Seventeen patients were living and well after intervals of more than twelve months. No return of the disease had occurred between the second and third years in 3 cases, and none between the third and fourth years in 4 cases, and in 3 other cases the patients were quite free from recurrence at the end of the fourth year. After total extirpation for sarcoma, 8 out of 9 patients recovered from the direct effects of the operation. The disease returned in 3 of these cases. One patient was quite well at the end of two, and another at the end of three years. Of the 49 cases of partial removal, 17 were fatal. In 4 of these fatal cases death was the immediate result of the operation, and in 8 cases the patients were carried off in the course of the first five weeks by pneumonia. In 43 of the 49 cases of partial removal of the larynx the operation was performed for carcinoma. Of the patients who recovered, 7 were well at the end of twelve months, 1 was well after an interval four, and another after an interval of seven years. The list of cases formed by Kraus includes 160 of total and 80 of partial removal of the larynx. In 142 of the former cases the

operation was performed for carcinoma. Of these, 10 cases were excluded as being too recent; in 57 of the remaining cases the patients died within the first two months. Twenty-five patients had survived the operation in good health for at least twelve months, 13 patients for two years, and 1 was alive and well at the end of an interval of nine years. Of the 80 cases in which only a part of the larynx was removed, 66 were cases of carcinoma. In 23 of the 55 cases of which subsequent histories could be obtained, the patients died from the effects of the operation within the first two months. In 16 cases the patients were alive and free from recurrence after intervals of at least twelve months. Of these, 8 had survived for more than two years, and 1 for eight years. Kraus holds that the removal of the larynx should be performed only in cases in which carcinoma is restricted to this organ, and to the first ring of the trachea. In the cases in which the disease had not extended beyond these limits, the proportion of recoveries was 21 per cent after total extirpation, and 40 per cent after partial removal.—*British Medical Journal.*

**THE PROGNOSTIC VALUE OF THE NUMBER OF RESPIRATIONS IN PULMONARY AFFECTIONS.**—Gerhardt has noted exactly the number of respirations in one hundred and forty cases of pneumonia, and reports his results in the *Revue de Thérapeutique*, December 1, 1890.

He found that the number of respirations was markedly less in those cases which recover than in those which died, but that the number of respirations was of less importance in forming prognosis than the daily variation in the respiratory.

From this point of view Gerhardt divides his observations into four different categories:

1. In the first group the number of respiratory movements never becomes very high, 40 perhaps representing the average. Laennec had already observed that the number of respirations might remain nearly normal even with marked alteration of temperature, pleuritic pain, and marked diminution of the respiratory field. In all these cases the temperature was never very elevated and the pleura was not affected; but, nevertheless, when it is considered that out of sixty-nine cases, which comprised that group, there were nine deaths, it is seen that the cases were of a severe type of pneumonia.

2. In the second group, which comprise fifteen cases, the number of respirations remained elevated throughout almost the entire duration of the disease. This series comprised nine cases and six deaths, and it was in this group that the respiratory movements were most ele-

vated, amounting to 60, and on the first day to 90 respirations a minute. The fever also was very high, although cases of pneumonia with great respiratory increase did not necessarily imply a corresponding increase in the pulse.

The third and fourth groups comprise all the cases which during the course of pneumonia indicate a temporary increase in the respiration above 40 in a minute. These cases were fifty-six in number, and Gerhardts has divided them into two classes, according as the transient acceleration of respiration was observed at the end of the disease.

3. The third group, which comprises twenty-two cases, with acceleration at the commencement of the disease, includes three fatal cases. It thus seems that acceleration of respiration at the onset of the disease does not appear to seriously affect the prognosis, especially when it is recognized that the respiratory movement of 80 to 90 a minute is not incompatible with recovery. Nevertheless the phenomena noted appeared to retard defervescence, which ordinarily occurred on the eighth or ninth day.

4. In the fourth series the acceleration, which came on toward the end of the disease, persisted up to death, which occurred in ten cases out of twenty-two.

In twelve cases the acceleration commenced before the crisis, during it, or after it. When occurring after the crisis, it might persist for a few hours up to two or three days. In regard to these last two groups it may be said that the influence of the fever is without effect on the respiratory rate, and that the summit of the respiratory curve is entirely independent of the elevation of the temperature. It is, however, quite different as regards the extension of the lesion. The extent in the inflammation then determines an augmentation in the respiration-frequency for many days before death, while the pulse at the same time becomes more frequent.

The respiratory frequency may also when fatal depend upon other circumstances, especially those which depend upon circulatory activity, such as occurs when pulmonary edema takes place or the power of the heart becomes weakened. It is also possible that certain mechanical or chemical conditions may occur which might influence the number of respirations, but these can not be accurately described. Every case of pneumonia implies an irritation of the pulmonary branches of the vagus nerves, to which should be added swelling of the bronchial ganglia, and the participation of the connective tissue of the diaphragm in the neighborhood of the phrenic nerve.—*Therapeutic Gazette*.

**SYPHILIS OF THE LUNG.**—Dr. E. Lancereaux (*Union Médicale*, No. 13, 1891) has a paper on syphilitic disease of the lung and pleura. Such lesions are rarely met with, but when seen pathologically the anatomical changes are sufficient to identify them. They occur in the form of indurations and gummata. Syphilitic sclerosis differs from tuberculous induration of the lung in many ways. It is met with, as a rule, in the lower or middle lobes rather than at the apices, and in the form of bands and fibrous tracts which are not welded together into a compact mass, but may inclose islets of lung tissue, generally more or less emphysematous. The fibrous tissue is not pigmented. The bronchi in relation with these indurations are often flattened, and the alveoli are filled with exudative fluid containing leucocytes and desquamated endothelial cells. The pleura is often thickened and adherent about such diseased areas, and the surface of the lung is puckered and furrowed in much the same manner as the surface of a cirrhotic liver. Syphilis and tubercle may be combined in the same organ, but the appearance of the sclerosed tissue is distinct in each. Cavities and the presence of fresh tubercle in other parts will aid the diagnosis. It is probable that many cases of chronic tuberculous disease have been classed in literature as syphilitic. Chronic pneumonia gives a firm, compact, indurated mass, soft and glossy to the feel, and not puckered on the surface. Leprosy of the lung is very rarely seen, and the characteristic bacilli would serve to distinguish it. Gumma of the lung is met with rather more frequently than syphilitic induration, but is still very uncommon, and no case should be accepted as such without absolute proof. The details of a case are quoted, and from the microscopic structure of the gummatous masses. Dr. Lancereaux believes that they are formed by peripheral increase from a starting point of peri-arteritis. Fatty degeneration takes place in the center of the mass, but the remains of alveolar walls and flattened epithelium can often be recognized. The parts around may be thickened by proliferation of lymphoid cells and congestion, and around the whole mass, which is indicated under the term "gumma," there is always a zone of indurated tissue more or less firm and vascular. The fatty degeneration of the centers of the masses may lead to liquefaction, and the evacuation of the fluid thus produced causes considerable irritation of bronchi. Cicatrices are often found in the neighborhood of the gummata, and a dry pleurisy is usually set up which results in dense adhesions. Syphilis never causes a purely serous exudation in the pleura. The diagnosis by physical signs is exceedingly difficult, and the symptoms are apt



to be very misleading. Cough, hemoptysis, and muco-purulent sputum may all be present, but the absence of the bacilli from the latter will form an important element in the diagnosis. Wasting, as a rule, only occurs when the liver or spleen is attacked by the disease, and it may thus happen that wasting will be progressive while the condition of the lung is improving. The latter tends to become stationary after a while, and if other organs are not affected the prognosis is good. The suspicion of syphilis should always attach to lesions beginning in the lower parts of the lung, and slowly progressing without the production of fever.—*Brit-Med. Journal*.

**THE THERAPEUTIC ACTION OF CHLOROFORM INCORPORATED IN OINTMENT.**—Chloroform is mostly employed by physicians in a mixture with oil. In making local application a great portion evaporates. Even when it is applied and protected with rubber cloth or wax paper, haste and care must be exercised if good results are to be accomplished. A precise, limited localization of the anesthesia can not be made by this means.

To mix the rapidly-evaporating chloroform with an ointment in a mortar is highly irrational. The greater the quantity of chloroform which is incorporated in an unctuous medium, the thinner and more rapidly disseminating does the ointment become, and the more illusive are localization with prolonged reaction rendered. To anticipate all this, the addition of wax in equal quantity by weight to the chloroform is essential, which should be remembered by the physician when prescribing. The mixture proportion—chloroform, 1 part; cera alba, 1 part; axungia, 3 parts—gives an ointment which gives excellent results in rheumatic local manifestations. Higher proportions—for example, chloroform, 17 parts; cera, 17 parts; axungia, 2 parts—react more energetically.

These ointments possess the following good properties: They retain the chloroform unchanged for three or four years; they can be spread with facility on old linen, muslin, etc.—one eighth of an inch is a layer of proper size—and they slowly melt at body-heat, liberating the chloroform evenly and successively; lastly, they enable continuous local anesthesia because of the limited direct application.

The preparation of the ointment is not difficult. The molten fluid, slightly cool mixture of cera and axungia, is poured into a glass jar or bottle, to which a glass stopper has been fitted so as to be perfectly air-tight. To this mixture the chloroform is added and the whole rapidly stirred with a spatula, after

which it is allowed to harden. During the cooling process it must be shaken now and again to prevent the formation of unequal layers, tendency to which exists because of the greater specific gravity of the chloroform. *Pittsburgh Medical Review*.

**TREATMENT OF CONVULSIONS IN CHILDREN.**—In a paper published in the *La Medecine Moderne*, December 18, 1890, the author calls attention briefly to the usual advice of at once removing the clothes of the child affected with convulsions before giving it a warm mustard bath, with cold applications to the head. The seizure is very apt to come from the digestive tube, and thus production of vomiting by tickling the soft palate, or the administration of an emetic may be of service, or a full dose of calomel or of castor oil may be administered. It should also be remembered that perhaps an intestinal parasite may be the starting-point of the convulsion, and that a vermifuge may be indicated. When there is cerebral hyperemia the application of leeches behind the ears may arrest the convulsion, or in very vigorous children bleeding may even be practiced with success. Mustard plasters may be perhaps of value applied to the lower extremities, or even the compression of the carotids, as recommended by Trousseau. Inhalations of chloroform may produce relief, but it will be usually only transient, and a repetition of its employment is not without danger. Bromide of potassium combined with chloral is especially reliable when the convulsions are obstinate,  $7\frac{1}{2}$  to 15 grains may be given to young children, 30 to 60 grains to children a little older, and 60 to 90 grains to children approaching adolescence. To new-born children the dose of chloral should be only  $\frac{3}{4}$  of a grain; to nursing infants 2 grains; 3 to 5 grains to children of two years of age, and 6 to 13 grains to children between seven and twelve years of age. When the convulsion has been subdued it would be well to continue the use of the bromides, prescribing bathing the head with cold water, general friction, lukewarm baths, and strict regulation of diet. With this may also be combined small doses of calomel and the valerianate and oxide of zinc.—*Therapeutic Gazette*.

**COCOA-NUT AS A TENICIDE.**—The statement published in the *Gazette* some time ago as to the tenicidal properties of cocoa-nut have been confirmed by a case reported by Dr. W. R. Allison in the *Peoria Medical Monthly* for November, 1889, in which the milk and meat of the cocoa-nut were taken by the patient, with the result of the expulsion of an entire tapeworm.

**THE ACTION OF STRONTIUM AND ITS SALTS.**—Some time ago we published the results obtained by Dr. Laborde in a number of experiments made as to the effects of strontium and its salts on the animal organism, and in *La Tribune Médicale* for December, 1890, he publishes a second series of experiments as to the comparative action of the salts of strontium and potassium compared with those of barium. The author has already shown that as compared with barium and potassium the salts of strontium are relatively innocuous, while the most interesting fact determined in the author's early experiments was the marked diuretic action which followed the administration of salts of strontium, especially the lactate and tartrate. From a number of experiments in this second series with the sulphate of strontium and the neutral sulphate of potassium in the first place, the neutral tartrate of strontium and the neutral tartrate of potassium, and thirdly, the orthophosphate of strontium and the orthophosphate of potassium, the following conclusions are drawn:

Strontium seems to be absolutely innocuous, and given even in considerable doses to dogs is not only not incompatible with the good health of the animals, but even seems to be a stimulant to the appetite and nutritive function.

On the other hand, the similar compounds of potassium are markedly toxic even in small doses. The author has further been able to confirm his statement that both the tartrate and the lactate of strontium possess marked diuretic powers. Chemical examination as to the mode of elimination of strontium and its salts seems to show that it is removed both through the urine and feces, while considerable quantities remain deposited in the liver and bones.—*Ibid.*

**THE ROTARY ELEMENT IN LATERAL CURVATURE OF THE SPINE.**—Dr. A. B. Judson, of New York (*Medical Record*, November 1, 1890), says he has seen no reason to change his opinion as to the cause of rotation in lateral curvature of the spine promulgated by him some fifteen years ago. He believes that rotation takes place because the anterior part of the column, the bodies, are free to move laterally in the cavity of the chest and abdomen, while the posterior part, the processes, are prevented from the same degree of lateral displacement by being entangled in the posterior parietes, composed of ribs, muscles, and fasciæ. He gives diagrams of mechanical arrangements of the vertebrae, showing how, when the spinous processes are fixed by elastic wires, pressure on the top of the column causes a rotary lateral

curve. When a single vertebra is seen in rotation, the body makes a wider excursion than the spinous process. The vertebra does not rotate on a central axis nor on a peripheral axis, but on an eccentric axis remote from the periphery and still further remote from the center. Rotation, he says, is physiological as well as pathological, a function of the normal spine. Lateral curving can not occur without it, and can be well seen when a thin person inclines to one or other side. For detecting early rotation he palpates the chest between the two palms. This will reveal a difference in the diagonal diameters of the chest when the curvature is overlooked in the line of the spinous processes. Thus, in rotation to the right in the dorsal region the diameter of the chest from the angles of the right ribs to the left mammary line will exceed the diameter from the angles of the left ribs to the right mammary line. In treatment Dr. Judson seeks to "produce lordosis of the dorsal and lumbar regions, on the theory that the patient is thus led to remove the imposed weight, or a part of it, from the bodies of the vertebrae, which deviate widely from the median line to the articular processes, which by virtue of rotation remain comparatively near the median line." This is done by suspension on the curved backboard, and by using an air-pillow (10x18) placed under the back when the patient is supine, so that the shoulders may lie between the air-pillow and the pillow for the head, and the pelvis may hang over the lower edge of the air-pillow. He also makes use of posture, exercises and recumbency in the treatment of these cases.—*British Medical Journal*.

**TRAUMATIC NEUROSES.**—This is a convenient term, but, like other terms which are convenient, it is apt to include far too much. In this country the most important traumatic neurosis which is met with is no doubt the so-called "railway spine," and it may be that cases placed in this category are as varied as those which Hoffmann (*Berlin. Klin. Woch.*, No. 29) found among a series of twenty-four cases of "traumatic neurosis." Of those twenty-four ten were found to have undoubted signs of organic mischief; in six the symptoms were partly the result of exaggeration and partly of simulation; in eight there was malingering, proved to be so after careful observation for several weeks. The author protests against the use of the term for such varied conditions, pointing out that in a so-called traumatic neurosis we may have to deal with organic nerve injury, with hysteria, the result of injury, with shock to the cerebro-spinal system, with neurasthenia, or even with a true psychosis.—*London Lancet*.



# The American Practitioner and News

"NEC TENUI PENNÂ."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE LONDON LANCET.

The Journal of the American Medical Association of the 7th inst., in an article headed as above, pays warm tribute to the memory of Thomas Wakley, the founder of *The Lancet*. It was his energy, zeal, and ability that made the journal all that it was before his death, and fixed it upon such a basis that it is likely to continue the leading medical journal of the world for many years to come. It would seem that Mr. Wakley had the courage and mental endowments of a reformer. Said he in a public speech: "I have foresworn medical practice; I use only the lancet, and that in the form of a quill." With this equipment he strode into the arena and dealt such blows upon the head of empiricism, old-fogyism, and governmental ignorance and outrage, that one can not but feel that *The Lance* rather than *The Lancet* would have been a more fitting name for his journal.

After noting the many essential reforms which resulted from his labors, the writer sums up his reward as follows:

"What did he gain by the exertion of his indomitable courage on behalf of his professional brethren? Either as plaintiff or as defendant in the law courts, Mr. Wakley must have fought some twenty-five or thirty actions,

contesting in his own person with some of the leading barristers of that day over matters connected with the advancement of the profession, at so great a personal expense that on several occasions the very existence of *The Lancet* was imperiled. He lent his aid in reforming the lunacy laws, and was always the defender of the rights and privileges of the medical officers of the united services and of the poor-law administration. He was the champion of the Fellows and Members of the Royal College of Surgeons, who were unfairly treated by a Council then wholly irresponsible and self-elective. In regard to this body, he maintained that when a few individuals were appointed to watch over the interests of a large body of men, it was quite necessary, in order to secure upright conduct on their part, that the interests of those few should be identified with those of the many. To this end he labored, exposing and denouncing the procedure of the 'minacious oligarchy of our mis-managed temple,' as he called the Council, and characterizing certain of the by-laws then in force as 'instruments of corporate iniquity.' To attack abuses uncompromisingly wherever they existed, to spare no effort, toil, or trouble to effect reforms wherever they were required, to raise the profession as a whole from the lowly position it then occupied to such a level as it has now attained in public esteem, were some of the labors of a life remarkable at once for uprightness and disinterestedness of purpose.

"I've heard of hearts unkind,  
Kind deeds with cold returning.  
Alas! the gratitude of men  
Hath oftener left me mourning."

"The memory of Thomas Wakley should be written in letters of gold on the mind of every medical man. Examples and principles such as these are surely those which all should be proud to follow and adopt, for even now necessity for further reform in each and all of the directions I have indicated is not wanting. I earnestly hope and believe that the successors of so worthy an ancestor will persist in the noble endeavor to carry out the promise made at the time when the great editor ceased to labor among us."

## Notes and Queries.

REFLECTIONS ON KOCH'S TREATMENT FOR TUBERCULOSIS.—Reviewing all the phenomena that have been recounted as having been observed after the exhibition of this potent fluid, one is compelled to take serious counsel with oneself in response to the anxious queries of our patients, and to ask this question, Are we to take it as proven that we have here a specific remedy for the bacillus tuberculosis? It is to Professor Koch that we owe the generally accepted theory that tuberculosis is due to bacteria. On *a priori* grounds, therefore, we should expect the specific for the disease should be one that would destroy the cause. Professor Koch admits that the liquid does not kill the bacillus, but that it causes the death of the tissue in which the bacilli lie embedded—that is to say, it may remove the effect, or rather cause the death of the effect, and not that of the cause.

If one of the many houses be infested and undermined by a horde of rats threatening the demolition of the building, it would not be a cure for rats to pull the walls down—the vermin would certainly betake themselves to other mansions. Professor Virchow's observations point the same moral with regard to the fatal cases that have had necropsies performed on tubercular patients who have been subjected to the liquid treatment. Another point: Are we to take it as proven that the liquid has a specific action on the tubercular tissue? One of the arguments used is that lesions that before injection of the liquid had been diagnosed as non-tubercular, after an injection inflame and show signs of activity. Therefore the lesion is tubercular. Is not this begging the question, and an apt illustration of arguing in a circle? The onus of proof lies with the supporters of the theory that this liquid has a specific action on tubercular tissue in man. Therefore, if a competent observer diagnosed a lesion to be non-tubercular and the lesion reacts to the liquid, the evidence, as far as it goes, is heavily against the fluid having a specific action. One wants to know how many human beings with lesions of another sort have been injected, and what were the results. Also,

will no other virus produce similar phenomena in tubercular human beings before we can say definitely that Koch's fluid has a specific action in man? Furbinger reports five cases where the fluid was unreliable in diagnosis. Is there no other explanation of the reaction induced by the liquid than that it is specific? Was it not a common phenomenon observed in surgical wards that a languid, non-healing wound took on a rapidly healing action after an attack of erysipelas? On the other hand, have we not all seen old cicatrices break down and wounds reopen during a violent attack of one of the exanthemata, or some chronic disorder entirely clear up after typhoid fever? In support of this view I see that Dr. Laurence reports two cases of phthisis cured by an attack of smallpox. Yet we do not say that these viruses have a specific action. If a patient has a weak organ or any damaged tissue, we expect that that organ or tissue will certainly be picked out, and apparently have to bear the brunt of the storm caused by any fever that may attack that patient, and we rather expect the cancer organism will attack a scar or mole in preference to more robust tissue. Koch's liquid is certainly a potent pyrogenic virus. Would it not be extraordinary if this virus did not pick out the markedly devitalized tubercular tissue—the points of least resistance? But it has not, therefore, necessarily a specific action or affinity for it. It almost seems to me that the phenomena observed in connection with this liquid in man may be explained on the theory of reactionary or substitutive fever—that is to say, if the organism is strong enough to respond to this powerful stimulus, under certain favorable conditions a healing process may be set up. Something similar on a smaller scale to what occurs when an indolent ulcer is blistered or burnt, or better still, to the healing process that follows the inflammation produced by the ferment of the jequirity bacillus when applied in cases of granular lids, lupoid growths, and epithelioma. All the reserve vitality of the human organism is evoked to cope with this potent foe, and the weak places are made strong as the wave of inflammation passes over them—the after-glow that follows the storm.



The legions summoned carry healing on their wings. But it sometimes happens that the weak places are so many, or the blood poison so powerful, that the patient sinks after the effort from exhaustion of the vital forces, or is poisoned by his own dead tissue.

To sum up: Can we be said to have a specific in Koch's liquid for the bacillus tuberculosis like we have in sulphur for the acarus scabiei, or in mercury for syphilis, or in quinine for the malarial organism? When the blood poisoning does good is it not by rousing the system to increased cellular action and then imitating nature's process by healing such, as has been observed under other modes of treatment, rather than by an action specific? We are none the less indebted to Professor Koch for his patient labors in adding to our knowledge and extending the limits of our healing and pathological vision.—*Dr. A. H. Bampton, London Lancet.*

THE LYMPH IN PARIS.—The Paris correspondent of the Journal of the American Medical Association says:

"In this medical center, as elsewhere, the new remedy for tuberculosis has been and is being extensively studied at the various hospitals. In a series of admirable lectures, Prof. Cornil has given a faithful account of the results of inoculations on his own patients of the Laënnec Hospital. These results do not differ materially from those recorded by other observers, if we except the occurrence of albuminuria in certain instances. The dose did not generally exceed one milligram, and this commendable caution has been imitated by most operators in Paris. At the St. Louis Hospital a committee of physicians and surgeons has been appointed to report on the effect of the lymph on the various forms of tuberculosis, and their report will soon be forthcoming. So far as one can gather from the opinions expressed by those most competent to judge, the lymph, however marvelous its diagnostic properties in a large proportion of cases, and however great the amelioration produced by it in lupus may be, has not hitherto fulfilled, as a curative agent, the expectations raised at its debut. A leading article in the *Paris Médical*

of January 10th bears this significant title: 'Résurrection du tubage du Larynx. Enterement des injections de la lymphe de Koch.' The writer recalls the successful resuscitation by O'Dwyer of an idea emanating originally from a Frenchman thirty-two years ago, and prophesies that thirty-two years hence Koch's treatment will, on the contrary, have passed into the limbo of things forgotten. The writer avers, on Debove's authority, that in fourteen indubitable cases of tuberculosis (observed by Rémond at Berlin) the lymph failed to provoke any reaction whatever. He finally adduces as a reason for the renunciation of the method the fact that, while the remedy has failed to cure a single case, it has already caused the death of more than twenty patients: seventeen in Germany, four in Austria, one in Paris, and one in Brussels—one fatality occurring in a case of lupus.

"M. Léon Petit (*Soc. de Méd. Pratique*, December 18, 1890) gives it as his opinion that Koch's lymph should be relegated to the laboratory until its range of action can be properly verified. Having, in collaboration with MM. Cérémonie and Gautrelet, found by analysis that the active principle of Koch's liquid is an amine, he has succeeded in fabricating a lymph possessing identical properties. This product he has denominated '*la lymphe Française*,' and he promises, when the results of experiments now in course of execution on tuberculous and normal animals of different species shall have been rigidly checked and controlled, that he will publish the mode of preparation of this new product."

A SCHOOL OF PHARMACY.—The department of pharmacy of the Northwestern University (Illinois College of Pharmacy) has just held its commencement exercises.

It is now in the fifth year of its existence, and the senior class of the past term numbered forty students, of whom twenty-nine have just graduated. The entire number of students during the term just past was a little over two hundred, not a bad showing for a college which admittedly maintains the highest standard of education on this continent, and which at the same time is the youngest.

THE LYMPH IN NEW YORK.—The New York correspondent of the *Journal of the American Medical Association* says:

"While it is, of course, far too soon to judge of the ultimate results of the treatment, the very extended series of experiments with the Koch inoculations which have now been carried on in this city have apparently been attended with effects for the most part corresponding with those reported from Germany. There can be no question, however, that the warning note sent out by Virchow has very properly had the result of making our hospital physicians proceed with marked caution in the matter, and it is probably safe to say that in cases of tubercular meningitis, for instance, the lymph will not again be employed. There appears to be sufficient ground for the belief that pulmonary tuberculosis in the early stages of the disease is checked, and may be cured by the injections, and there seems to be a general agreement as to their beneficial effect in cases of lupus.

"But even in lupus, according to Dr. P. A. Morrow, the well-known dermatologist, while the observations made would seem to show that the results thus far obtained may be regarded as satisfactory and promising, they can not be called conclusive in any sense as yet. There should be much hesitation, he claims, about declaring that there has been a cure effected in a case of lupus, as it is well known how prone the disease is to break out again after apparent disappearance. A relapse being liable to occur after six, twelve, or even eighteen months, he would not be satisfied that a cure had really been made until the patient had been under observation a very long time.

"For some time past Dr. George F. Shrady, editor of the *Medical Record*, has been experimenting with the lymph on cancer cases at the New York Cancer Hospital, and it is even said that it has been used in leprosy in this city, but it does not seem at all likely that any very definite results will be obtained in such cases. William Degan, the consumptive selected by Dr. Shrady from the St. Francis Hospital to be sent to Berlin for treatment, has returned to New York, and is again at the hospital undergoing injections. It is reported that his

condition is now considerably improved, but whether this improvement will continue or not is somewhat problematical, as it is thought that the disease was perhaps too far advanced in his case to afford ground of hope for the best results.

"In New Haven, Conn., where the Koch treatment was employed for the first time in this country, the injections having been begun on December 3d, Prof. Francis Bacon is reported as having said recently: 'The original representation in regard to the curative effect of the lymph on lupus is confirmed, so far as the present experiments have gone, but I can hardly say as much regarding its effect on pulmonary tuberculosis. I do not care to express an opinion regarding each individual case, but I will say that there has been an improvement in the condition of the patients, or, in other words, that they are better than they were before the use of the remedy was begun. It is hardly time yet to demonstrate the full efficacy of the lymph, but enough is known to assure us that it is a most powerful agent.'

"For some time past very encouraging reports have been made concerning the treatment of phthisis at the House of Rest for Consumptives, of this city, by Dr. C. E. Bruce, and at the last meeting of the Medical Society of the County of New York, that gentleman reported some of the results obtained by him, and gave an explanation of his method, the essential point of which, it seems, is the hypodermic injection of aniline and sterilized oil in increasing doses. The plan of treatment, he states, is the result of an extended course of investigation into the nature of the tubercle bacillus, and long before the announcement of the discovery of Koch's remedy he was engaged, assisted by Drs. J. S. Healy and T. W. Rogers, in studying the effects of various substances upon the bacillus. He received his first clue, as it might be called, from a German medical journal, and this leading his thoughts in a special direction finally resulted in the experiments with the remedy named. These experiments have been very satisfactory as far as they have gone, but sufficient time has not elapsed to speak of the results at all definitely. Should these eventually prove as encouraging



as Dr. Bruce hopes, he thinks a remedy will be in the hands of the profession which will be free from many of the objections which have been made against Koch's lymph. Thus, it is an entirely harmless material which can be readily furnished to any practitioner in the country, there being no necessity for culture, as in the case of an organic substance like the lymph. Its use can be safely undertaken without the special experiment and careful watching which the employment of the latter demands, and another point in its favor is that as far as the experiments thus far made with it go to show, it seems to be most effective in the advanced stages of phthisis, where the lymph is apparently least beneficial. Since the first of January patients side by side in the House of Rest for Consumptives have been treated respectively by the Koch and Bruce methods, and the results reported have been decidedly in favor of the latter. In this institution, it is to be remembered that the subjects are as a rule in the advanced stages of the disease. The profession has naturally learned to be somewhat skeptical in regard to reported remedies in phthisis, but further developments in this matter will be awaited with interest.

THE LATE DR. MATTHEWS DUNCAN.—In beginning his course of clinical lectures on January 29th, at St. Bartholomew's Hospital, Dr. Champneys referred to his predecessor, Dr. Matthews Duncan, in the following terms:

"Gentlemen—The same thought is probably occupying the minds of all of us to-day—the thought that a voice to which most of you have listened with pleasure and with great profit for many years no longer fills this theater; that a presence embodying the dignity and the learning which was characteristic of its owner has disappeared from among us for ever. This would, in some sense, have been the position under any circumstances, for to each of your teachers, and to me in my turn, must come the time of retirement, when, in the words of the old Roman poet Ennius, he '*senio confectus quiescit*.' And yet how different are the circumstances from what we might have hoped and should have chosen for him. A man of less indomitable will would perhaps have taken

warning earlier, would have sought relief from some of the duties which were his greatest pleasure, as they were also his most engrossing work. But he would not yield; he struggled on in harness till, as you all know, and some of you saw, he broke down in the act of instructing you, and after a vain effort to tide over the few weeks which remained of last summer session he left the country of his adoption—to die. This great hospital has lost, the profession has lost, the country has lost, the world has lost—how much can I say? But you and I have also lost in a special way, for had his absence to-day been due merely to his inevitable retirement, it would have been my endeavor to try to prevent that retirement from being absolute; it would have been my endeavor to persuade him to come among us from time to time and to give us lectures, which I should have delighted to hear side by side with you, and which his great learning and rich experience would have made, I feel sure, no unpleasant task for him. But *dis aliter visum*, and that dream is over. But besides this I have lost a kind and dear friend, from whom I might have learned very much regarding the management of this great department, the changes which have taken place during my absence of ten years, and the prospects of the future. These I must learn without this help. Gentlemen, I stand before you as a stranger, and yet the kindness which I have experienced on my return seems to forbid me to use such a term. Standing as I do in the place of the greatest obstetrician of our time, I ask you to continue to me the goodwill which I know from him that you never failed to show, and, as a motto for us all, I would say, 'May the spirit of James Matthews Duncan preside over all our meetings.'"—*Lancet*.

COMPULSORY LATIN.—To the controversy as to the continuance of Greek as a compulsory subject at the universities, raised by Mr. Well-don's paper at the Head Masters' Conference, Prof. J. Stuart Blackie has contributed a remarkable letter, published by the Times on January 21st—remarkable in itself, and still more remarkable as coming from one whose great reputation was made as a teacher of

Greek. As to the necessity for learning Greek in order to obtain a reasonable standard of culture, Prof. Blackie employs a most pungent argument. "The Greeks," he writes, "learned no language but their mother tongue, and were nothing the less the wisest people in the ancient world and the teachers of wisdom to all generations." But he goes a good deal further than the head masters of Harrow and of Rugby; he calls in question the supreme value of Latin as an element in education. Two or three centuries ago Latin was the key to storehouses of knowledge not otherwise accessible; but "it is not so now. The most rich and various storehouses of all sorts of knowledge, both speculative and practical, are open to a modern British man without any key but his mother tongue; and an Englishman or a Scot, in the latter end of this nineteenth century, three hundred years after Shakespeare, has no more need of going to dead languages for the sake of the culture that belongs to a well-educated gentleman than a Newcastle man has to send to the end of the world for coals which he has at his own door. . . . What was once an anomalous necessity has now become an absurd anachronism, a scholastic tradition." Prof. Blackie is for requiring from the candidate for an ordinary pass degrees in arts—as to medicine he appears to reserve his opinion—a familiar knowledge of some one foreign tongue, ancient or modern, for he writes: "Even on the supposition that linguistic training is the very best possible for a youth of good promise in this nineteenth century, it is quite certain that German is as good for this purpose as either Latin or Greek, with this immense advantage—that the language of Goethe and Bismarck, if once learned, will likely be used, while in the case of Greek and Latin, it seems an undeniable fact that nineteen out of twenty British youths who have gone through the traditional routine of a classical education forget easily in three months all that they have painfully acquired in as many years." Dr. Wade, in his presidential address to the association at Birmingham, was thought by many to have been overbold when he maintained that the question whether Latin should be retained as a compulsory subject in

the curriculum of medical students was one which might be debated; it was said that his action would tend to hasten the fulfillment of the prophecy that within a few generations medicine would cease to be a liberal profession. But he found a powerful ally in Prof. Huxley, and now it would seem that Prof. Blackie is prepared to back Prof. Huxley; and if these two representative men are not men of culture, some new definition of that much abused phrase must be devised.—*British Med. Journal*.

THE AMERICAN CLIMATE AND THE JEWS.—Under the direction of Dr. John S. Billings, a special inquiry was made during the recent census into the vital statistics of the Jews in the United States; special schedules were sent out to the heads of 15,000 Jewish families, and the returns received were from 10,618 families, comprising 60,630 persons. All these families had resided at least five years in the United States, and it was hoped in this way to obtain a mass of statistics showing the effect of any special influences peculiar to the climatic or social circumstances of the United States. In a census bulletin (No. 19) just issued, Dr. Billings reports the results, which are illustrated by a series of elaborate statistical tables. It would appear that the Jews in the United States preserve many of the peculiarities which have been noted with regard to their vital statistics in Europe. As in Europe, their marriage-rate, birth-rate, and death-rate are all lower than their neighbors'; their expectation of life is better at all ages. It is curious to read that the relative loss of the Jews from diphtheria, diarrheal diseases, diseases of the nervous system (especially of the spinal cord), diseases of the circulatory and urinary systems, of the bones and joints, and of the skin has been greater, and from tuberculous diseases (including scrofula), less than their neighbors'; their death-rate from cancer would appear to be about the same. But perhaps the most inexplicable fact, if fact it be, is that the birth-rate appears to be diminishing, owing, partly at least, to a diminished fertility in women born in the United States—"those mothers who were born in the United States only averaged 3.56 children each, as



against 5.24 for those born in Germany, 5.63 for those born in Russia and Poland, 5.27 for those born in Hungary, and 5.44 for those born in Bohemia." Further, it appears that among males "the general death-rate is greater among those whose mothers were born in the United States, and least among those whose mothers were natives of Russia and Poland." Dr. Billings, however, points out that the death-rate of males during the best years for manual work (15 to 45) is less among those born of parents born in the United States. It would be premature to speculate as to the causes of these somewhat disquieting facts, for we are promised statistics as to immigrants of other nationalities, but they are not at variance with some well ascertained facts, as, for instance, the high death-rate of many American cities. They, however, suggest the reflection whether the advantages of somewhat higher wages, and the possession of a marketable vote, may not be purchased too dearly at the cost of municipal disregard of elementary sanitation, and the vagaries of the McKinley tariff.—*British Medical Journal*.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will hold its seventeenth annual session at St. Louis, Mo., Wednesday, Thursday, and Friday, October, 14, 15, and 16, 1891. A large attendance, a valuable programme, and a good time are expected. The members of the medical profession are respectfully invited to attend. C. H. Hughes, M. D., President, 500 N. Jefferson Avenue, St. Louis; E. S. McKee, M. D., Secretary, 57 West Seventh Street, Cincinnati; I. N. Love, M. D., Chairman Committee of Arrangements, 301 N. Grand Avenue, St. Louis.

KOCH'S TREATMENT AT BRISTOL AND LIVERPOOL.—At the British General Hospital there are already eighteen patients under treatment, under the care of Dr. Markham Skerrett, Dr. Harrison, and Dr. Barclay Baron. Of these, six are suffering from lupus, one is a case of serous pleurisy, and the remainder are the subjects of pulmonary and laryngeal disease. The reaction in lupus has been of the ordinary type, and the patients are doing well. The

definite reaction in the case of serous pleurisy is of interest, as in accordance with the experience of the Berlin observers that reaction occurs in all instances of this condition. Reaction has followed in the phthisical patients, but it is too early to estimate the influence of the treatment on the pulmonary lesion. The injections have not in any case given rise to serious symptoms. All medical men in the neighborhood who are interested in the study of Koch's method are invited to watch the progress of the patients, as the supply of lymph is sufficient to insure the continuous treatment of an increasing number of cases.—*British Medical Journal*.

*Editors American Practitioner and News:*

DEAR SIR: An asthmatic neighbor of mine gets so much relief from inhaling the smoke of a teaspoonful of the following combination that he wants all other chronic asthmatics to know about it; so I send it to you:

Stramonium leaves	} aa.....	3iv;
Green tea dust.....		
Lobelia .....		3iss.

Mix together and wet up with a saturated solution of nitrate of potassium. Dry thoroughly and keep in a close can or well stoppered bottle.

W. T. PLANT, M. D.

SYRACUSE, N. Y., March 3, 1891.

*Editors American Practitioner and News:*

FOR THE GRIPPE.—With the recurring prevalence of the so-called *grippe*, I beg leave to suggest the following as a specific for adults in such cases:

Salol .....	3iij;
Phenacetin .....	3ij;
Quinia salicylat .....	3j.

M., ft. cap. xx. Sig: Two every three hours.

E. R. PALMER, M. D.

LOUISVILLE, KY., March 1, 1891.

PRACTICAL VALUE OF DISINFECTION OF THE SURROUNDINGS IN ENZOÛTIC TETANUS.—(Leonardo Valentini, *Il raccogl med.*, September 30, 1890.) In one stable in Rome thirty horses died of tetanus in the course of two years. The writer excised a piece from a small cicatrix of one of the dead horses, and also took some earth from different stalls. A number of rabbits and guinea-pigs were inoculated with these substances, and tetanus invariably followed. Thereupon the most careful disinfection of the whole place with corrosive sublimate and hydrochloric

ric acid was begun and continued from time to time to the present (two years). In the first months after this procedure only one case of tetanus occurred, and since then none. This experience, the author thinks, requires no commentary, as it speaks for itself and adds a brilliant triumph to the germicidal doctrine and antiseptic medicine. Besides the scientific importance of this observation and its addition to our knowledge of the etiology of tetanus, it is of great importance from a humane standpoint in the prophylaxis of the disease.

**HOMOEOPATHS CONVERTED.**—The New York Medical Times (a sort of homeopathic journal), in its issue for February 7, 1891, says: "Dr. Carroll Dunham, son of the late Carroll Dunham, M. D., for a long time professor of Materia Medica, etc., in the New York Homeopathic Medical College, according to the Medical Register of the United States, is a graduate of the said homeopathic college of the year 1880 and of Bellevue Hospital Medical College of 1887, and is registered as a 'regular' physician residing at Irvington, N. Y. We are informed that Dr. E. K. Dunham, another son of the late Dr. Carroll Dunham, is also a 'regular' physician! We are told that several sons of the late Dr. Beers, a homeopathic physician of Philadelphia, are in the 'regular' school! The list could be extended! It certainly looks as if these gentlemen were not satisfied that homeopathic colleges in general teach the whole of medicine.—*Medical and Surgical Reporter.*"

**QUILL DRAINAGE TUBES.**—Dr. O. K. Nowell, Surgeon to the Out-patient Department of the Massachusetts General Hospital, Boston, says, in the Medical Record, February 7, 1891, that Dr. Beach has used for the past two years, at his clinic, drainage-tubes made from large-sized tapered quills, such as are used for making the finer grades of camel's-hair brushes. The quills are taken without cutting off the dermal end, and perforated at intervals with an ordinary round leather punch. As shown in a figure, a delicate and smooth probe-pointed tube is thus provided, presenting the maximum lumen and minimum thickness of wall. This

tube is made from a natural dermal appendage, and is absolutely unirritating. It can be readily cut with scissors, and is not fragile like glass. It does not undergo any of the irritating chemical changes which are frequently seen where rubber tubes have remained for any length of time. These tubes are preserved in corrosive sublimate or carbolic acid solutions, and are easily sterilized.

## SPECIAL NOTICES.

**MAYER'S HERBALS AND JAMNATH'S.** The remarkable catalogue of medical books and journals issued by A. E. Mayer, M. D., of No. 411½ Elm Avenue, Philadelphia, has long been known to the ordinary commercial catalogue as the *Index Venustus* of the Surgeon-General's office for the ordinary catalogue. Complete it contains over 14,000 titles. This comprehensive catalogue is sent free to every physician requesting this needed paper or sending his professional card. It is indispensable to every practitioner, and is the largest stock in the world. It is a valuable and complete catalogue of the best, latest, and most useful medical literature of the world. A printed list of the catalogue has had Prof. Mayer to accumulate the largest stock of books in the world, over 100,000. These books are at the following low prices: \$1.00, and \$2.00 per 100 good specimens, including a book, and 100 other copies for \$1.00. Price lists sent free on application.

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Peppermint and Upland Balm is entirely free from the impurities of the Peppermint, possessing an agreeable odor.

Another very important part in medical preparations that are suitable for all the methods of treatment is Peppermint. Most famous with Peppermint is easily accessible, highly nutritious, and suitable for all.

Another is prepared by using as much as 100 grains of the oil of the oil, and it possesses the same properties of being very low in price. The Anise Balm is made of a whole preparation in the same manner of the Peppermint. Anise is a valuable product of Tryptol obtained by subjecting a mixture of Tryptol to the action of Potassium with an alkaline Tryptol solution.

Dr. C. L. Davis, of New York, contributes an article on Pathology of Cancer. In conclusion he says: "It has been found that a vasomotor paralysis and trophic disturbance affecting certain vessels of the body, and to a large extent of the body, may lead to the formation of cancer, with consecutive changes in growth and degeneration." The following results obtained by several physicians, and reported to us, of the administration of Hair Tonic Colloids in cases would seem to add confirmation to the conclusions of Dr. Davis.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.  
[NEW SERIES.]

LOUISVILLE, KY., MARCH 28, 1891.

No. 7.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, for the reader is sure to say, "This is the point; this is the point; this is the point," or his reader will certainly misunderstand them. Generally, also, a short article is more likely to be read than a long one. I have seen many a long article at present worth nothing at all.—ROBIN.*

## Original Articles.

### THE HIGBEE POISONING CASES.\*

BY T. B. GREENLEY, M. D.

There is so much excitement and interest aroused among the people generally and especially among the neighbors of the family. I thought I would write a paper on the subject, detailing the most important points in the history of the case.

It has not only excited much popular interest but has also interested very greatly the professions, both of law and medicine. It involves important questions in a medico-legal point of view.

The Higbee family consisted of husband and wife with five children, ranging from the baby, fifteen months old, up to the oldest, which was eight years of age.

The baby died first, then the second one as to age, then the fourth oldest, and lastly the eldest, eight years, leaving the middle one, the third child, who is about five years old.

The children were all girls, and formed a group pretty enough to make any mother proud to possess such a progeny.

The family lived near the village of Muldraugh, in Meade County, in an old house situated in rather a gloomy, lonesome looking place.

On the 12th of October, 1890, at night, the youngest child of Mrs. Higbee (fifteen months old) was taken very sick with severe and persistent vomiting. When the doctor arrived, next morning, it was still vomiting and also

purgings, with great prostration. Its pulse was quite rapid and feeble, with about normal temperature. Owing to the warm weather together with the fact that the doctor had two cases of cholera infantum on hand, he regarded this case as one of that disease, although the symptoms were unusually severe in character. The child died next day in collapse.

Just two weeks from the date of the sickness of this case the second child took sick with all the symptoms attending the first. The physician, Dr. Lewis, who attended the other case was sent for, but could afford little relief. The writer saw this child the second day of its sickness, with Dr. L., when it was dying, and regarded it as a case of brain congestion. This child was about six years old.

Two weeks from the time of the sickness and death of the second the third victim was taken sick with all the symptoms affecting the other two. Dr. L. was called, and found the child greatly prostrated—vomiting and purging. Like the other cases he was unable to afford any relief, and it died the next day. This child was two years and six months old. The doctor in this case had a couple of neighboring physicians called in consultation. The best diagnosis they could make was brain involvement.

The advice of the attending physician was now for the family to leave the house, which was a very old one and somewhat dilapidated, thinking, perhaps, that some local cause existed which was producing such terrible effects. This advice was immediately followed.

Just three weeks from the death of the third case the fourth child was taken sick in the same way as the preceding ones. Having moved to the village of Muldraugh, where a physician (Dr. Basham) resided, he was called to attend the case. The child, eight years old,

\*Read at meeting of the Hardin County Medical Society, March 1, 1891.

was taken on Saturday evening and was very sick, vomiting and purging that night and next day, but early Monday morning was much better—sitting up in bed, playing—and expressed herself as feeling nearly well, and thought she would go to school the next day. The doctor called at this time and expressed the opinion that the child was relieved, and told its mother to let it have a little nourishment. In an hour or so after this he was called back, the patient being terribly sick again, the previous symptoms having returned. The doctor was unable to ameliorate the patient's condition after this, and she died the next night.

By this time the physicians had become to regard the deaths of the children as being due to unnatural causes, and wished to hold autopsy on the body of the last child. This was, however, violently opposed by the mother. In about a week after its burial the mother was induced to visit relatives in Louisville, and during her absence the two last children were disinterred and *post-mortem* examinations made. The stomachs, with contents, and a portion of each liver were placed in separate bottles and taken to Prof. Howe, Scientist, Polytechnic Society, who made an analysis of a small portion of the liver of each child, which afforded a very palpable presence of arsenic in the form of the oxide.

A jury of inquest was now held by the coroner of Meade County, at Muldraugh, and some forty witnesses examined before it. The evidence before this jury was sufficient to convince it that the children died from the effects of arsenic, and that it was administered by the hands of the mother while laboring under mental derangement.

In the mean time Mrs. H. was arrested and imprisoned in Louisville on the charge of lunacy. The court appointed Major Kinney, one of the ablest attorneys in the city, to defend her. When brought before the court her attorney read a lengthy report pertaining to her case, and moved an indefinite postponement, which the court granted. The prisoner was then released. She now returned to her old home, when the excitement among the neighbors was such that she was again arrested under a writ of lunacy by the authorities of

Meade County and tried before a jury of her vicinage.

The court (County Judge) appointed Mr. Malin, a very talented young attorney of Meade County, to defend her, while the prosecution was conducted by Mr. Hamilton, the County Attorney.

I will here not detail the minutia of the evidence before this jury, but merely in as condensed a manner as possible give the main points bearing on the case.

It was satisfactorily shown by all the witnesses, who were neighbors to the family, that Mrs. H. had, previously to the loss of the children, been a kind, careful, and affectionate mother, as much so as any mother of their acquaintance, and seemed to be proud of them, and would brag on them as being as good, pretty, and smart as anybody's children. The family being poor, she would work out, gather berries, and do other things in order to enable her to dress and fix them up to look as nice as other people's children, and take them to church and Sunday-school. Dr. Lewis, the attending physician of the first three children, who is a man of fine sense and stands high as a practitioner, gave a very succinct account of their sickness and death. As before remarked, he regarded the first case as one of cholera infantum, but of unusual severity. But when the other two were taken with the same symptoms and died so suddenly, he concluded there was brain involvement. During his attention to the children he was greatly shocked at the apparent indifference on the part of the mother in regard to the sickness and death of her children. This was more particularly palpable from the fact that she had always before manifested so much interest in them. This, with other peculiarities on her part, convinced him that she was not in her natural mental condition; and when the question was asked, if he believed she poisoned her children, he answered in the affirmative, but also believed she did so under homicidal impulse. The attorney for the defense asked him, if he could eliminate from his mind the belief that she destroyed her children, did he consider her sufficiently insane to be sent to the asylum? He answered in the negative.

The doctor had attended her during her first



and fifth pregnancy for very severe and protracted attacks of hysteria, which presented some symptoms of a severe nervous character unusual in that disease. The trouble in the first pregnancy lasted several months, and it was in evidence that in all her five pregnancies she suffered very greatly with the same disease, at times losing consciousness. It was also in evidence by all the witnesses for the prosecution that a great change in the mental condition as well as the conduct of the defendant had existed since the death of the first child. As before stated, she had changed from a careful and affectionate mother to one of stolid indifference. She also treated her best friends with coldness and indifference.

One very intelligent witness, who was present and assisted in nursing several of the children, stated that during the sickness of the third victim the mother refused to give the medicine as the doctor directed. He had left a mixture of morphia and directed a teaspoonful to be given every hour until the child stopped vomiting and got quiet, and then every four hours. The mother insisted on giving the medicine every hour after the child became quiet, when the witness deceived her by giving simply water.

This witness also stated that burial clothes had been prepared before the child died. She noticed other peculiarities in her conduct sufficient to induce her to believe the defendant to be off her proper mental balance.

A gentleman, neighbor of the family, in passing, called to see how they were on the morning of the day the third child was taken sick. When he stepped into the house the children (the three that were left) knowing him, came hanging around him, while the mother was in the kitchen getting dinner. He talked and played with them until the mother came in, when he remarked to her that he was glad to see them all well. She replied that they were not all well, that Tillie, pointing to her, was not well, that she was going to be sick like the others.

He endeavored to convince her the child was not sick, that it was well and playing with the other children when he came in, and was as well as they were. But she still contended the

child was sick and was going to be just like the others. That evening the child was sick with all the symptoms which had affected the others.

Another witness, a quite intelligent lady and close neighbor, stated that on Friday morning, while the fourth victim was at school and well, defendant said that she would be sick the next day (Saturday) just like the others. She was taken violently ill the next evening. She also stated that the defendant got the goods to make her burial clothes before the child was sick, and made and ironed them on Saturday, the day the child was taken ill.

In this case she refused to give the child its medicine according to the doctor's directions, and remarked to this witness that it was useless to give it any thing, as it was sick just like the others and would die.

It was also observed by this witness that the mother, after the death of this child, and when on the eve of leaving for Louisville, threw something wrapped in yellow paper into the stove, where it burned up. She also related several other strange actions in her conduct while the child was sick.

Dr. Basham attended the last child; was called on Saturday night; found the child very sick, vomiting, with great thirst. Visited it again on Sunday, and at night the patient became more quiet. On Monday morning, early, he found it much better—sitting up in bed playing. It seemed to be quite relieved, but was weak. He ordered it to have some nourishment. In a few hours he was called back and found the child much worse, very sick and vomiting. He was unable to account for the sudden change which had taken place since morning. He again prescribed for it, but was unable to afford it relief with any means he could use. The patient died on Tuesday night. He noticed a great indifference on the part of the mother as it respected the welfare of the child. She even refused to give it medicine as directed, nor would she allow it to have nourishment as he requested, claiming that it would do no good, as she was sick like the others and would die.

Dr. Basham regarded the prisoner as laboring under mental alienation during the sickness of the child.

Dr. Aud, a prominent practitioner of Hardin County, saw the defendant directly after the death of her fourth child. He was sent for to aid in the *post-mortem* examination, but, as before stated, the mother resisted all arguments and persuasions, and remarked that no cutting should be done on her children; that Mamie (the remaining child) would soon follow the others, and she would then follow Mamie, and then they might cut on her as much as they pleased. She remarked to one of the witnesses that if any doctors cut on her children they would suffer for it more than the children had suffered.

The doctor believed from what he had seen of her actions, and from the testimony before the court, that the defendant was insane.

The most important witness as to Mrs. Higbee's history and psychological characteristics was Dr. H. K. Pusey, of Louisville, a very eminent alienist, who was familiarly acquainted with her from childhood up. In fact he partly raised her, having taken her when an orphan of eleven years old; his house being her home until she married at eighteen. On this account the doctor felt much solicitude in her behalf. His testimony, therefore, being of great importance in elucidating her history and mental condition, I will be excused from making quite lengthy extracts from it.

Dr. Pusey's statement was as follows: "I have known Mrs. Higbee all her life, and I have known both branches of the families from which she sprang as long as I can remember. As a girl she was eccentric, of rather less than average intelligence, and self-willed to a degree amounting to stubbornness. She was never influenced by advice nor affected by reproof. She neither obeyed the one nor resented the other; nothing would prevent her from doing what she wanted to do, or from going where she wanted to go. She would disobey and yet appear cheerful and happy, and be conciliatory toward those whom she had disobeyed. She was never guilty of any gross improprieties. She was always affectionate and kind, especially to children. She seemed grateful to her benefactors, and by many acts endeared herself to them.

"Her parents were first cousins. I have said that she inherited an insane neurosis or predis-

position. While I do not remember any case of acute mania in either branch of her family, the graver forms of mental degeneracy have manifested themselves in each of three generations; on the mother's side in the form of idiocy, epilepsy, and imbecility, and on the father's side in epilepsy and consumption.

"I have noted the evidence given in this case relating to nervous trouble during pregnancy, and I saw her twice with Dr. Lewis in her first pregnancy, and I can confirm all that he has said about her great nervous and mental disturbances. I am familiar with the history of her trouble recurring with each succeeding pregnancy, and with the fact that she has had six pregnancies in nine years and nursed five children, the nursing period overlapping the next pregnancy by two to four months each time, as in the present instance.

"Pregnancy and lactation, especially the latter, are prolific exciting causes of insanity; and when combined, as in this woman's frail and defective organization, and subjected as she has been at short intervals to the strain and shock and drain of child-bearing and continued lactation, it is not a matter of surprise that an explosion should occur.

"Insanities occurring at any period of the puerperal condition, embracing gestation, parturition, and lactation, are peculiarly liable to give rise to homicidal impulse; this impulse almost invariably selecting the child or the children of the patient herself for its victims. If this woman destroyed her children, I believe she was insane when she did it.

"This opinion is not based solely on inherited defect and on the insane and motiveless character of the act. The entire investigation has failed to discover a suspicion of a motive on her part for the deed.

"No intimation on her part of a purpose to give up the struggle for her children, and to deliberately and wickedly relieve herself of them, has ever been expressed. That such a motive could not have existed, is clear, for the reason that if guilty at all there is abundant evidence that she herself was embraced in the catalogue of victims claimed by her impulses. That there was an attempt made on her own life there is little room to doubt. If this effort



was made by herself it was possible to save her other two children from her deadly impulses by adopting the only means available to that end.

"I saw her three days after the death of her third child and on the second day of her own illness. In view of her long residence in our family, and the affection she had always manifested for us, I was surprised to learn that she had objected to having me call to see her. She exhibited no emotion at seeing me. She made no inquiry after my health or about my family. She seemed to me to be laboring under great nervous prostration and shock, which I attributed to the loss of her children, and possibly to fright over her own case. Her condition was such that a sudden outbreak of acute mania seemed to be imminent. I told the friends that she was so overwhelmed and oppressed, mentally, as in a great measure to be unconscious of what was going on around her, and as to render it impossible for me to determine her real condition. I expressed fear as to her mental condition, and believed her mind was giving way.

"The method, the manner, and the periodicity in the execution, and the cunning shown in the concealment of the deed, afford no evidence of sanity, but on the contrary do show most unquestionable evidence of insanity resulting from much graver and more permanent lesions of the brain and mind-centers than are found in the explosions of temporary passion or depraved impulses produced by moral causes.

"Intelligence is not a test of sanity. Explosive impulses, whether homicidal or suicidal, may have nothing to do with the intellect, but may arise entirely from the morbid feelings which so overpower the judgment and the will as to render those faculties powerless to prevent an act which the one knows to be wrong, and which the other would prevent if it had the power to do it.

"If this woman poisoned her children it was while she was insane and under the influence of homicidal impulse, which impulse came in place of the hysteria and hysterical explosions with which she had suffered in each and all of her former pregnancies—the impulse no doubt being stimulated and the mode of its gratifica-

tion determined by the presence of the poison in the house, except for which the deed may never have been done.

"If she did the deed it indicates a return of the impulse at the period marked by the death of each child.

"It is possible that the impulse did return at these short intervals, and that the murderous force was expended in the destruction of another victim—each act being attended by that kind of temporary relief that follows an explosion of nervous energy in epileptic convulsions. The impassive manner in which she is represented to have borne the death of her children, her reticent, evasive, and suspicious conduct during their illness, all denote delusional insanity as well as homicidal impulse.

"If it was possible for this mother in the sound and natural mind in which she had borne, nursed, and cared for her five children to go deliberately about ridding herself of them, she certainly would have spared herself the repeated torture of seeing her little ones, one after another, at intervals of two weeks, writhe and squirm in the agonies of death from arsenic, and herself to have continued the hellish work until all were gone.

"No, if she had done the deed with a motive she would have destroyed them all at once, and thereby have made the probability of accident appear more plausible; and having completed the work, she would have exhibited enough of anguish and grief to satisfy those who have not been able to understand the reason why she did not grieve and mourn over the death of her children."

The writer, not knowing any thing personally of Mrs. Higbee's characteristics, was examined as an expert witness. Having heard all the testimony coming before the court, he simply predicated his opinion upon it. He believed that the defendant destroyed her children, but under the influence of homicidal mania or impulse. When asked by attorney for defense, if he could eliminate the belief from his mind that she destroyed her children, would he regard her as insane; and if so, on what grounds? his response was: When we take into consideration the influence of heredity, the history of the terrible attacks of neuroses during her

former five pregnancies, and the great change during this last pregnancy from a kind, careful, and affectionate mother toward her children to almost stolid indifference for them, together with the prediction of her children's sickness, and the method observed in the preparation for their death, with other actions and talk during their sickness as detailed before this court, he must believe her to be insane, but of course not sufficiently violent to necessitate her confinement in the asylum. He believes her to be dangerous only so far as her periodical homicidal impulses may impel her to action.

He believes that the severe physical strain she has undergone incident to child-bearing, lactation, etc., has reacted on her mentality in such a way as to engender a morbid condition of the mind, and that in all probability this condition has been aided by brooding over her surroundings together with the gloomy prospects for the future.

In affiant's opinion this morbid state of the mind has supervened during her present gestation, and taken the place of the neuroses affecting her in all her former pregnancies.

This condition of the mind, due to the causes alluded to, greatly favored the development of homicidal mania by any exciting cause; and on the night when the first child took sick, her husband, leaving her alone with her children against her violent protest, brought about an explosion, and knowing there was poison in the house, the means with which to commit homicide was suggested to the mind, and in accordance with the rule the chosen victim was the thing she loved best on earth, her baby.

The defendant was now examined. She denied that she was insane. She did not know the cause of the death of her children. She denied giving them poison. When asked if she knew or had any idea who gave them poison, she replied that if they were poisoned the doctors did it. When asked why she objected to having the last child examined to ascertain the cause of death, she replied that if the doctors had n't sense enough to tell what ailed the children before they died they could n't tell afterward. She admitted that no one beside herself was present when each child took sick.

She contradicted the statements of several witnesses in regard to her conduct during the children's sickness.

Several other witnesses were examined as to her sanity, but the evidence was mainly negative. They had noticed nothing in her conduct to induce them to believe she was insane.

Several extracts from different authors were read by the prosecution confirmatory of the expert testimony and illustrating the different phases of puerperal insanity and homicidal impulses, a few of which I will give in as condensed a manner as possible.

Morel\* says: "Insanity of pregnancy is sometimes due to hereditary transmission; sometimes to neuropathic conditions pre-existent to the pregnancy, and which constitute mental states of a disquieting character. In some hysterical elements prevail." He also noticed that mental ailments were apt to increase as the pregnancies multiplied. "Insanity in pregnant women is most apt to make its appearance during the fourth month of pregnancy."

In speaking of homicidal mania Hammond† says: "In this variety of mental derangement there is an intense desire to kill, and the development of pleasurable feelings as a result of yielding to the longing. Murders are therefore perpetrated by the subjects of this variety of emotional monomania which are without malice or cupidity or any other emotion save that of the gratification of their passion for killing."

In reciting a case of homicidal impulse in a woman who determined to destroy her children, he says: ‡"I could detect no intellectual disorder; neither were there illusions or hallucinations. She appeared to be of a calm and equable temperament, and she conversed in the most rational manner in regard to the terrible passion for killing her own children with which she was afflicted. She said that she felt that it was becoming stronger every day, and that unless something was done for her she should end by murdering them."

Reese§ says of homicidal mania: "In this form of madness the propensity to homicide is

\*Treatise on Mental Maladies, p. 272.

†Treatise on Insanity, p. 441. 2<sup>nd</sup> ed. p. 446.

‡Medical Jurisprudence, p. 552.



very great. There may or may not accompany it some intellectual aberration, but the characteristic feature is an uncontrollable impulse to take life, often of those dearest to the unhappy victim, actuated by some delusion, which has perhaps been preying upon his mind for months before, but only now suddenly breaking out."

\*"Not unfrequently the madman destroys those who were dearest to him while he was sane, and for whose destruction he could have had no conceivable motive."

Lewis† says: "To a certain proportion of the puerperal the whole period of lactation is one fraught with risks. The period is one of acknowledged susceptibility, and when conjoined to this normal exaltation we have the predisposition engendered by ancestral insanity, the acquired elements evolved out of vicious modes of life and inattention to the plainest physiological dicta, the morbid impetus toward insanity is greatly strengthened."

On page 185 he says: "The puerperal period, as is well known, renders neurotic subjects liable to insane impulses, and although usually a symptom of the general disturbance of puerperal mania, the simple distinctive form may alone prevail." Again, on page 187, "The brutal instincts are still less protected in those persons of weak mind who, not endowed with an average amount of controlling power, require but the intensification of such instinctive states to explosive outbursts."

Dr. Maudsley,‡ in speaking of homicidal impulse, says: "On several occasions I have been consulted by a married lady, the mother of several children, who is afflicted with recurring impulses to kill her youngest children of whom she is most fond; she can not bear sometimes to be in the room with them when there are knives on the table, and no one else is present; and she is driven to retire to her bedroom, where she weeps in an agony of despair because of what she calls her wicked thoughts, and prays frantically to be delivered from them."

Dr. Skæ§ relates a somewhat similar case of a female who was tormented with a simple ab-

stract desire to kill, or rather (for it took a specific form) to strangle her children, without any disorder of the intellectual powers, and who deplored in piteous terms the horrible propensity under which she labored. The existence of this kind of disease is placed beyond doubt by the concurrent testimony of all those whose practical knowledge of insanity gives weight to their opinions, and authority to their words; the denial of it for theoretical reasons, based upon the deliverances of a sane self-consciousness, is reckless and unwarrantable."

\*"So desperate sometimes is the fear of yielding to the morbid impulse, so intense the horror of doing so, and so extreme the mental agony, that a mother afflicted with the impulse to kill her child has killed herself to prevent a worse consummation."

†"That a person so afflicted can and sometimes does resist the diseased idea or impulse causes many to think, and some to argue, that it might always be successfully resisted. The word irresistible offends much their theoretical notions of the power and dignity of the human will. The truth is, that it is a simple question of the degree of morbid degeneration of nerve element whether the idea shall remain in consciousness and be under subjection or become uncontrollable and realize its energy in action; and bodily conditions will very much affect that question."

"The behavior of a person who, carried away by an uncontrollable impulse, has done a homicide, after the convulsive paroxysm is over, may show something like a positive sense of relief. He is, perhaps, a little dazed and stupefied at first, before he comes to himself and realizes what he has done, but when he has come to himself he does not evince the horror and remorse which might be expected."

‡"Under the name of puerperal insanity have been generally confounded three morbid states; namely, the insanity of pregnancy, puerperal insanity proper, and insanity of lactation. Of 155 cases of so-called puerperal insanity admitted into the Edinburgh Asylum, 28 were cases of the insanity of pregnancy, 73 cases of puerperal insanity proper, and 54 were cases of insanity of lactation."

§Medical Jurisprudence, p. 553.

†Text-Book Mental Diseases, p. 376.

‡Pathology of Mind, p. 333. §*Ibid.* p. 335.

\**Ibid.* p. 343.

†*Ibid.* p. 343.

‡*Ibid.* p. 209.

In speaking of the insanity of pregnancy, Dr. Spitzka\* says: "Pregnant women develop the strongest conceptions and impulses, often blended with the morbid appetites of their condition. It seems that here the murderous and cannibalistic impulses are usually directed against those nearest and dearest to them, on that same basis of contrariness which appears to govern the imperative conceptions of the insane generally."

Taylor† defines homicidal mania to be a state of partial insanity, accompanied by an impulse to the perpetration of murder, hence it is sometimes called paroxysmal or impulsive mania. There may or may not be evidence of intellectual aberration, but the main feature of the disorder is the existence of destructive impulse, which, like a delusion, can not be combated by the patient.

This impulse, thus dominating over all other feelings, leads a person to destroy those to whom he is most fondly attached, or any one who may be involved in his delusion."

E-quirol‡ says: "The impulse to kill is sudden, unreflecting, and uncontrollable. The act of homicide is perpetrated without motive and often on persons who are most fondly loved by the perpetrator." He further remarks: "All the cases which came before him had these features in common: an irritable constitution, great excitability, singularity or eccentricity of character; and previously to the manifestation of the homicidal feeling there was a gentle, kind, and affectionate disposition."

Many more quotations might be made pertinent to this case, but those already given sufficiently illustrate the phase of homicidal mania or impulse under which we regard this woman to have labored.

After able arguments, both by the defense and prosecution, the jury in a short time returned a verdict of insanity, and the defendant was committed to the Central Asylum at Anchoorage.

Her gestation period will terminate in April, and in all probability in a short time after her parturient period she will regain her mental equilibrium. It will then be possible that she

will become conscious of the great loss she has sustained in the death of her children and manifest her grief accordingly.

As Dr. Pusey remarked in his testimony, that, in all probability, if the poison had not been in the house at the time the first impulse to destroy her children affected her, no other means would have been used to accomplish her object. The knowledge of its presence suggested the means. In this particular, a woman under an impulse of that character is different from a man as to the selection of her means to destroy life. She will use the means that in her estimation will not be so violent in character, while the presence of a hatchet, a razor, butcher knife, pistol, or even a club will suggest the means to a man by which to accomplish the end in view. This difference also pertains to a very great extent in cases of suicidal mania or impulse. A woman will, as a rule, drown herself or take poison, and hardly ever resort to fire-arms unless she is accustomed to handling them. A man, on the other hand, if no milder means are at hand, will cut his throat or hang himself, or perhaps butt his brains out against the wall. This difference between the two sexes is due to difference in physical organization.

As explanatory to the presence of arsenic in the house, it was in evidence by the husband before the coroner's inquest, that about a year before the death of the first child he had purchased a box of "rough on rats," but on reading the directions he learned of its deadly effect on every thing living, he was afraid to put it out for fear the children or something else besides the rats might get it, and put it in the clock on the mantle-piece. He had noticed it there occasionally, and shortly before the first child was taken sick, and did not miss it until after the death of the fourth child, when, after suspicion arose that the children were poisoned, he inquired of his wife where it was, and she said "in his little box," but he was unable to find it in the box or about the house.

Major Kinney expressed the opinion that the mother did not poison her children, and that it was done by some other party. On this account, at the coroner's inquest, Dr. Pusey was careful to inquire of all the witnesses who were

\*Spitzka on Insanity, p. 38.

†Medical Jurisprudence, p. 384.

‡Mental Maladies, vol. 2, p. 824.



present during the illness and death of the children, if they knew of any one who was at the house, besides the mother, when they were taken sick. There was no evidence elicited from any one that any other person was present aside from the mother. Then at the trial for lunacy, when the mother was interrogated on this point, she readily admitted that no one but herself was present when each one of the children was taken sick. She said that her husband was at home when the second one was taken, but was out on the farm. When each one of the other three was taken sick he was from home.

All the evidence points to her as the party who administered the poison.

The popular idea is, that if a person does not manifest symptoms of insanity, either by word or deed, they can not be insane. This idea among the laity should not surprise us, when the deportment of some insane is so natural and rational that some of our best alienists are often puzzled to make the proper distinction.

Two of our greatest experts, Doctors Gray and Spitzka, were arrayed on opposite sides on the trial of Guiteau for killing President Garfield, one contending that he was sane and the other that he was insane.

In ordinary conversation with Mrs. Higbee at the present time, it would be a difficult matter for one unaccustomed to psychological defects to discover any thing like insanity. But on her examination by counsel it was plain to the alienist that she was laboring under the delusion that there was a conspiracy among the doctors to destroy her children. As before stated, when asked if she did not give the poison to her children how did she think they got it, she readily answered, "why the doctors gave it to them." And on being asked if they were not very sick when the doctors saw them, she said "yes, but they did not get any worse until the doctors came."

When asked by her attorney to explain to the jury why she objected to have the last child examined to learn the cause of death, she quickly answered, "If the doctors had not sense enough to tell what was the matter with the children before they died they could not afterward."

Some of the spectators regarded these answers as being sharp and witty, and as evidence of sanity, while they really evidenced only a peculiar kind of cunning due to delusional insanity.

Within the last fortnight the grand jury of Meade County has investigated the case thoroughly and failed to find Mrs. Higbee guilty of crime, thereby confirming the verdicts of both the coroner's jury and that which tried her for lunacy. Like those juries, this one regarded the mother to be insane at the time she administered the poison to her children.

It is said that this jury also very particularly inquired into the theory entertained by some that some other party aside from the mother poisoned the children, but found there was not a suspicion of guilt resting on any one else.

WEST POINT, KY.

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## Societies.

### MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated Meeting, held February 12, 1891.

The seven hundred and twentieth regular meeting of the Society was called to order by the president, Dr. David Streett.

Dr. T. C. Gilchrist and Dr. Wilmer Brinton were elected to membership.

Dr. D. W. Cathell related some cases of eczema caused by the use of ivory soap:

About two years ago he saw two children with eczema of the feet. While visiting them one day, the mother asked him if the disease could be caused by the use of ivory soap? He said he thought not. A short time after this he saw another case of the same trouble. This time he put the question as to whether ivory soap was used, and he was answered in the affirmative. Soon after this he saw another case of the same disease, and found that ivory soap was used, and that the disease had manifested itself since this soap had been introduced in the family. This has occurred so frequently that he confidently tells the patient that they "use ivory soap," when he sees a case, without asking any questions. It is a peculiar form of red eczema, and appears as if

the epidermis had been absorbed or dissolved as by chemical action, and as though the eczema had been precipitated on them without it going through the various gradations of the disease. He did not know who was the maker or where this soap was made, but is sure it is the cause of seventeen out of twenty cases of red eczema that he has seen in the last two years.

Dr. H. T. Rennolds said he had not observed any thing of this kind, but it is worthy of remark that Dr. Kelly, in his remarks before the Society some weeks ago, said that he used ivory soap.

Dr. J. F. Martenet said he had had no experience with it himself, but on one occasion when he was with Dr. Councilman, who was making a *post-mortem*, he (Dr. Councilman) excused himself and left for the purpose of getting a cake of ivory soap, and when he returned he stated he used it to the exclusion of all other soaps.

Dr. F. C. Bressler said he used it in his office and carried it in his satchel, and has seen no bad effects from its use. It was recommended to him by a fellow practitioner who uses it in an extensive obstetric practice.

Dr. W. S. Gardner said he had used it since 1882, and can not use any other on account of the tenderness of his skin; other soaps caused his hands to chap. He knows a number of ladies, one especially, a blonde young woman of very delicate skin, who all use it in preference to any other kind. They use it at the Maternité for all purposes, for laundrying, bathing, etc.

Dr. D. W. Cathell said he was confident that if the members of the Society will make observations with this in mind, they will observe the same thing which he has observed. This soap is a nice looking article, it floats, and is a good solvent, and the people who use it may think so well of it as to use it to excess, thus these eczemas may be caused by the abuse rather than from its proper use. He is certain that he has not placed the number of cases he has observed too high. But that this soap has caused this peculiar form of red eczema he is equally sure.

Dr. Wm. S. Gardner related a case of death of a new born child from an unusual cause:

The mother was a primipara, aged twenty-two. Her pelvic measurements were, between the anterior superior spinous processes  $10\frac{1}{4}$  inches, between the crests of the ilia  $11\frac{1}{2}$  inches, and the external conjugate was 7 inches. These measurements not indicating any deformity, no difficulty in her labor was anticipated. When labor came on, it progressed very favorably, the first stage being completed in four hours and thirty minutes, the head was in the left occipito-anterior position, and rotating only about half the distance that it should, it descended into the pelvis until it came nearly to the perineum.

After waiting what was considered a reasonable length of time—the pains having continued good—an anesthetic was given, and forceps applied. A considerable amount of force was required to deliver the head. Immediately after the face cleared the perineum, meconium began to stream from the nose of the child. At least an ounce of meconium came from the nose of the child before the body was delivered, and a considerable quantity was removed from the mouth with the finger. The cord pulsated, but the child made no effort to breathe. A variety of methods of artificial respiration were tried, but no air could be gotten into the lungs. About fifteen minutes after the birth of the child the heart stopped beating. Dr. Kierle made the *post-mortem* and found the trachea filled with meconium. The same pressure which forced the meconium out of the nose, in all probability also forced it into the trachea.

The case is of interest on account of the unusual cause of death. A large portion, probably a majority of still-births, that is of children who die during labor, are caused by fracture of the base of the skull.

Dr. F. C. Bressler said he had a case of placenta previa some time ago. After having performed podalic version, the head became arrested at the outlet with face toward the hollow of the sacrum. He noticed that the child made several convulsive efforts at respiration. After its birth he found its mouth filled with meconium and mucus. He cleansed its mouth, but owing to the serious condition of the mother, he could not devote much time to it.



When he came to devote his attention to the child, it could not be made to breathe by any of the methods of artificial respiration. This was the only case in his experience where meconium was found in the mouth. He thought Dr. Gardner's case was a rare one, as death in this case was undoubtedly caused by meconium in the air-passages. He questioned the accuracy of Dr. Gardner's statement that in most of the still-births death was caused by fracture of the skull. He made it a point to examine every case of still-birth carefully and thoroughly, and he has not been able to find fractures of the skull. Those that he has seen were due to the forceps.

Dr. Gardner asked if Dr. Bressler had made any *post mortems* in these cases?

Dr. Bressler said, no, he had not; but in examining them he had depended on his tactile power, and he thought he could detect a fracture on a dead baby's skull, especially as the examination could be very thorough, as there need be no fear of hurting a dead baby. He thought most cases of still-births were due to want of proper treatment by the obstetrician, either in delaying too long to assist nature, or after the child's birth in not applying proper restorative measures.

He believes that if a soft catheter were used oftener to suck out foreign matters from the trachea, that more children would be saved.

Dr. Gardner said the fractures he spoke of were not fractures of the vault of the cranium, produced by forceps, but fractures of the occipital bone produced by the uterine contractions acting through the spinal cord. These fractures are found where the forceps were not used early enough, and can in no case be caused by them. The fractures over the vault of the cranium can easily be felt by any one, but the fractures about the base of the brain can only be demonstrated by *post-mortem* examination.

Dr. Streett related a case of sciatica caused by pressure of the pregnant uterus:

He was called about ten days ago to see a lady who was suffering great pain. She had an acute attack of sciatic neuralgia in the left leg; the pain being so intense that she screamed aloud with each paroxysm. A paroxysm would be caused by the slightest touch or mo-

tion of the leg or foot. She was placed on morphia, half a grain, every two hours, until relief was obtained. She took this almost steadily for five days. The pain was constant, but more intense with each paroxysm. The limb was bathed in chloroform liniment and imbedded in flannel and cotton. He also gave quinine, fifteen grains twice daily. She remained about the same. He noticed that the uterus was hard and enlarged to about the size of three months' pregnancy. She was near the menopause, and had been suffering with hemorrhage and irregular menstruation for several years. He questioned her closely as to the possibility of being pregnant, but she said she did not think it possible. He then told her that the sciatica was caused by the enlarged uterus pressing upon the nerves in the pelvis. On the occasion of his sixth visit, she said she had passed what seemed to be a blood-clot from the vagina. On examination it proved to be a fetus of about six weeks, in the membranes intact. She did not have any more paroxysms of pain in the leg after the passing of the fetus. The leg remained sore for a few days, but she is now well and sitting up in her room. It is very evident that the pain in the leg was due to the expulsive efforts of the uterus in trying to expel the fetus. On examining the uterus it was found to be large and hard, apparently a fibroid; it was completely retroverted, the fundus in the hollow of the sacrum and the os high up behind the symphysis pubes, and difficult to feel. He said he had some compunctions of conscience in regard to the large doses of quinine he had given her, as some are of the opinion that quinine in large doses may cause a miscarriage. But he had frequently given quinine to pregnant women before, and had never had any injurious results.

Dr. S. T. Earle said, after practicing for fourteen years in a malarious climate, he of necessity had an extensive acquaintance with quinine. He had given it frequently, in all manner of doses, to pregnant women, and had found no ill effects from its administration.

Dr. W. S. Gardner said, as to examining the urine in cases of convulsion, he thought it would be misleading if we depended on the presence or absence of albumen alone to make

a diagnosis. He has the records of a number of cases of women who had no albumen in their urine up to the time of having convulsions, when it was found. In others, where there was a small quantity of albumen, it was increased in amount, if examined a short time after having convulsions. In one case, where the resident physician passed a catheter as soon as the patient became quiet enough to do so, no albumen was found, but in examining the urine again, obtained in the same way, long enough after the convulsion for the kidney to have secreted it after the seizure, albumen was found. The fact of albumen being in the urine, especially after a convulsion, was not diagnostic of renal disease. On the other hand we may have renal disease and there be no albumen in the urine. As in the case of a woman who had frequent convulsions, and frequent examinations of the urine showed no albumen, but there was always a low specific gravity.

When she died the *post-mortem* showed contracted kidney. As to quinine, he gave it to women unmindful as to whether they were pregnant or not, and he has not had any trouble that he could ascribe to it.

Dr. David Streett said it is well-known that we rarely find albumen in the urine of patients suffering from contracted kidney. There is another class of cases of nephritis in which there is an absence of albumen, and that is the nephritis of pregnancy. This clinical fact mentioned by Dr. Gardner is mentioned in Flint's Practice of Medicine. So that Dr. Gardner's statement is in accord with the statement made by Flint. The examination of urine, as frequently made by heat and nitric acid, gives us some information, but falls short of what is desired. In examining urine note should be made of color, odor, reaction to litmus, specific gravity, and the presence or absence of albumen, sugar, phosphates, etc., and by the microscope for tube casts, epithelial cells, crystals, etc. When there is a small amount of albumen he thought Heller's layer test the most delicate.

Dr. R. G. Davis said, when he finds a low specific gravity, he always asks if the patient has drunk beer, and usually the answer is "yes."

Dr. J. F. Martenet said, while specific gravity

is of some importance, we should not put too much value on it, as it may be brought about, as Dr. Davis has said, by drinking beer or any fluid. The ordinary examination by heat and nitric acid is not reliable, the microscope is the best method of examining where we wish to get definite information. He knew of a case where a gentleman was being treated by a physician of large practice, who examined the urine by heat and nitric acid, and said there was nothing wrong with the kidneys, the patient grew worse and worse, he had edema of the legs up to the knees, and his dyspnea was so marked that he could not lie down. A consultation was had, the urine examined microscopically, and tube casts were found.

He was called to see a lady who was said to be hysterical; he examined the urine by the microscope and found tube casts. She recovered under proper treatment. As to the sciatica due to pressure of the uterus on the sacral plexus, as reported by Dr. Streett, he has a case of a man with hemorrhoids, who has a sciatic and is almost a cripple from the pressure of the hemorrhoids on the sacral nerves. This patient refuses to be operated on for the removal of the hemorrhoids. Another case of a lady, with a relaxed vaginal outlet, and the pressure of a subinvolved uterus on the sacral plexus has developed a sciatica in her case. In this case the pain is relieved by introducing the finger and lifting up the uterus.

Dr. Streett said specific gravity varies with the form of the nephritis, the quantity of liquid imbibed, the degree of perspiration, and the condition of the alimentary canal. Diarrhea, for instance, lessens the quantity of the urine also. Referring to the relative importance of visual symptoms: About seven years ago he was attending a patient for myalgia, when without any warning he suddenly became blind. He consulted an eye specialist and found the patient had acute nephritis and uremic amaurosis as a result. He regained vision in about four days and made a good recovery. In another case, a lady whom he was attending said her daughter had some trouble with her eyes, she being near-sighted. He referred her to an eye specialist, who diagnosed nephritis by the ophthalmoscope and told her



to call her family physician in. That night he was sent for suddenly, and found her in uremic convulsions, she was in the fifth month of pregnancy. She died in twelve hours. In diagnosing nephritis, we should not consider symptoms in the abstract, but should draw our information from every possible source, the condition of the patient, the symptoms, the history of the case, and the results of a thorough examination of the urine. Do this, and we will seldom err in our opinion.

J. WM. FUNCK, M. D.,

BALTIMORE, MD.

*Rec. Sec'y.*

## Reviews and Bibliography.

**Heredity, Health, and Personal Beauty.** By JOHN V. SHOEMAKER, A. M., M. D. 422 pp. Philadelphia and London: F. A. Davis. 1890.

The author frankly gives us to understand in his preface that he has not been particular to inquire, in launching this work, whether or not it was needed to fill a long-felt want, feeling satisfied that he could create the want along with the supply. And the candid reader must concede that if variety, richness, and freshness of thought and theme can create a want, the doctor has succeeded admirably. Certainly if such want already exists, and can not claim to be supplied, it at least can not deny being well catered to.

Heredity, health, and personal beauty the author takes for his text, and after the likeness of what is seen with many a pulpit, the sermon is all the better because the preacher wanders far from the text.

Particular fondness is shown for evolutionary themes, and if not really much of an original character is supplied, the truths of the plodders are attractively dressed, and for this reason will be welcomed by many who otherwise might have been "not at home."

Believing, as we do, that the doctrine of evolution is a grand tree laden with precious fruit for the healing of the nations, possibly the very one that Adam was about to put forth and eat of, in the garden, when time was called on him, we welcome every curve of the pen that serves to enlighten the world on that crowning discovery of the ages.

In Dr. Shoemaker's book many will get acquainted with the advanced teachings of the day, for the reason that they are set forth in pleasing and comely dress, who might else have been left in the willful darkness of bigotry.

Passing from multifarious, howbeit pleasant dissertations, a wide range of cosmetic themes is treated in an entertaining and instructive way that shows both close observation and patient thought. Indeed it can hardly be gainsaid that, though the writer has flung the unities to the wind in the construction of this book, the reading of the work itself must have about as pleasant influence on the features of the reader as any of the medicaments or procedures it recommends.

D. T. S.

**Diseases of the Digestive Organs in Infancy and Childhood**, with chapters on the Investigation of Disease; the Diet and General Management of Children, and Massage in Pediatrics. By LOUIS STARR, M. D. Second edition. Illustrated. 395 pp. Philadelphia: P. Blakiston, Son & Co. 1891.

The treatment of the diseases of the digestive organs in children requires a greater share of the attention of the physician, and on more occasions the exercise of rapidity of judgment and prompt decision, than perhaps all other diseases of childhood together.

To give prominence to this class of disorders, constituting as they do so large a proportion of the ailments of childhood, was the author's avowed aim in the production of this work. In this edition the author has brought the general subject-matter thoroughly abreast of the times. The original text has been rearranged and some new material added. The style is easy and clear, the work is written in a broad spirit, and is throughout highly instructive and entertaining.

D. T. S.

**A Compend of Diseases of Children.** Especially adapted for the use of Medical Students. By MARCUS P. HATFIELD, A. M., M. D., Professor of Diseases of Children, Chicago Medical College. With a colored plate. 182 pp. Philadelphia: P. Blakiston, Son & Co. 1890.

This is No. 14 of Quiz Compend by this enterprising house, and while replete with valuable matter is not, in our opinion, up to the standard of previous numbers. Beside lacking

somewhat in the charm of style which every one feels but which is hard to describe, there are some evidences of inattentive proof-reading that certainly will be remedied in future editions. When we read on page 63 that rachitis comes from *paxis*, the spine; that it "may occur in *inter-uterine* life," we can not escape the conclusion that there has been faulty proof-reading. And when we read on the same page, "These (distinctive marks) consist in a final ossification of the whole former soft mass of bone into a compact, thick bony substance, thus retaining its pathological original thickening, sclerosis, or eburnatio," we hardly know what to think, or what the author wants us to think. No. 14, though in the main excellent, will evidently bear a little retouching on almost every page.

D. T. S.

**Saunders' Question Compends, No. 14.** Part I: Essentials of Refraction and Diseases of the Eye. By EDWARD JACKSON, A. M., M. D. Part II: Essentials of Diseases of the Nose and Throat. 276 pp. Philadelphia: W. B. Saunders. 1890.

This number of the Question Compends is gotten up in the same attractive style as the previous numbers of the series. These works have thoroughly won their place as stimulating and very helpful aids to study, and no physician can well afford to be without one or the other series of these truly valuable aids.

**Manual of Clinical Diagnosis.** By Dr. OTTO SEIFERT, Privatdozent in Würzburg, and Dr. FRIEDRICH MÜLLER, Assistant of Medical Clinic in Berlin. Translated from the fifth German edition, enlarged and revised, with the permission of the authors. By WILLIAM BUCKINGHAM CANFIELD, A. M., M. D. Berlin. Second edition, revised and enlarged. With fifty illustrations and one colored plate. 185 pp. New York: G. B. Putnam's Sons.

The rapid progress made during the last few years in pathology, and especially in bacteriology, has made such extensive changes necessary in the teaching in these departments, that the best works of a few years ago are already antiquated. This small and unpretentious work really marks the most decided adaptation of recent discoveries to methods of clinical diagnosis. The different methods of examination have been clearly given, as well as a convenient collection of the data and figures with

which the physician and student is supposed always to become familiar. The authors have taken especial care to consider the needs of the student and physician by noting only what is trustworthy and omitting facts and details that are self-evident or of secondary importance.

D. T. S.

**Transactions of the American Orthopedic Association.** Fourth session, held at Philadelphia, Pa., September 16, 17, and 18, 1890. Volume III. 238 pp. Philadelphia: N. J. Dorman, Publisher for the Association.

The proceedings of this Association reflect the rapid progress being made in orthopedics, and also furnish a pleasant example of work in a department of medicine where results are open to full inspection, and can almost invariably be intelligently passed upon. A record of good work by earnest men.

D. T. S.

**A Compend of Gynecology.** By HENRY MORRIS, M. D., late Demonstrator of Obstetrics and Diseases of Women and Children in the Jefferson Medical College, Philadelphia. 178 pp. Philadelphia: P. Blakiston, Son & Co. 1891.

This is No. 7 of the Blakiston Quiz Compends, and will compare favorably with any of the other numbers of the series, or indeed with any work of its kind.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The favorable official reports from the Prussian hospitals regarding the effects of Dr. Koch's "tuberculine" are unhappily not borne out by the experience of Mr. Jordan Lloyd, F. R. C. S., as described by him at Queen's College, Birmingham. Mr. Lloyd stated that for more than two months he had been using the lymph; he had given it even in larger doses than the Berlin professor recommended, and he did not hesitate to say that in his hands, in the treatment of chronic surgical diseases of all kinds, it had been perfectly useless, and, moreover, that it could not be depended upon as a diagnostic agent. Koch's fluid he considered to be undoubtedly a liquid of very great power, as seen by the general and local



disturbance which attended its demonstration; but as a curative agent — and that was the respect alone in which he spoke of it, for he had had no experience in the physiological laboratory — it was not worth the postage stamps that were required to bring it over from Germany.

A highly interesting treatise has been published with reference to the cure of morphinism. In order to diminish or alleviate the host of symptoms which appear when morphine is withheld from a person who is habituated to it, certain "morphine substitutes" have been introduced, principally opium, cocaine, and most recently codeine. The method of treatment recommended is that the morphine is wholly abandoned in four weeks. In order to cut off all possible sources of morphia, the patients must be watched in the early days of deprivation, and even their letters opened only in the presence of the physician, the neighboring pharmacists have also to be instructed to supply them with the drug on no account whatever. With reference to avoiding the flight of the patient before the cure is complete, the thing is to get the promise of the patient as soon as the worst is over to strictly obey orders. The injections should be made before meals and the patient kept in the open air, the exercise must be considerably restricted, as it may readily become exhausting. Abundant eating must be encouraged and the use of wine and beer. When the last dose is reached the patients are kept in bed, and if the symptoms become severe extract of opium in wine is given. Experience shows that opium is the best substitute for the alleviation of the symptoms following abstinence. It is a bad plan to give it simultaneously with the morphine, nor of course must it ever be within reach of the patient. It is most indicated in profuse diarrhea with painful tenesmus. Massage and electricity are not recommended against the neuralgic pains, because they are more unpleasant to the patients than the latter themselves. The best prophylactic against collapse is, according to the author, the taking of regular nutrition combined with the early use of alcohol. Generally with the appearance of diarrhea the psychical condition improves. Of great im-

portance is a rational hydropathic treatment, full shower and other baths. The prevention of relapse is often difficult enough, especially when the patient is allowed to return to his ordinary life before the nervous system has fully regained its tone. Sleeplessness, which may last for weeks, is a frequent source of danger. Hypnotics should be used very sparingly.

Startling evidence has been given before Mr. Hedley and Dr. Bridges, who are holding an inquiry on behalf of the Local Government Board respecting certain allegations against the management of the Eastern Fever Hospital. According to the story told by a nurse investigation is certainly needed: Food very inferior; bread mouldy and mouse-eaten; fish unfit for human food, and practically always haddock (just as the meat for dinner for three years was always boiled mutton); milk often sour; for butter inferior margarine; rice sometimes bad; beef tea weak at times and often tainted. But worse remains: Witness declared that she had known bedsteads removed from one infectious ward to another and used for patients suffering from different disorders without being disinfected. Convalescents from diphtheria were placed in beds which she believed had not been disinfected, and several cases of scarlet fever had broken out among these patients. It is thought the authorities have some strong evidence to rebut these grave charges.

A medical man who has recently been traveling in Abyssinia has communicated his experience with regard to cocoa-nut oil as a remedy for tape-worm. When traveling one day, after eating and drinking the pulp and milk of several cocoa-nuts, he felt very unwell. Soon after there came on a copious action of the bowels, and he was surprised to see that he had expelled a complete tape-worm, head and all, quite dead. Since then he has experimented on a number of persons suffering from tape-worms, and with success in all cases, the tenia always coming out entire and dead. The treatment now adopted as being the most convenient and effective is as follows: The patient while fasting is ordered to take, in the morning, the milk and pulp of one cocoa-nut. No

cathartic is needed and no peculiar care is requisite. This simple remedy is stated to be as effective as pomegranate root or male fern, and for several reasons preferable to them. The only difficulty appears that of being able to induce a patient to eat an entire cocoa-nut, milk and all, before breakfast in the morning.

"It is not my business to discuss the scheme brought forward by the leader of the Salvation Army," said the Duke of Portland, "but I would ask the public at large not to desert old and well tried friends in the shape of institutions which by the noble work they have done have established their claim to support for new and unfledged schemes which may or may not be of greater advantage and utility." His Grace was pleading the cause of the East London Hospital for Children, and he quoted statistics showing that during the twenty-three years of its existence nearly a quarter of a million cases had been treated. Notwithstanding the support of the poor of the locality there had been a falling off in the public subscription, and the board had seriously contemplated closing two of the wards. As Mr. Cheston, the chairman of the committee, explained, the hospital had happily benefited to the extent of £3,000 under the will of a lady who desired that her only daughter should espouse neither a foreigner nor a Smith. She married an American and therefore forfeited the money.

Without doubt London is the best drained capital in the world; this enviable distinction has not however been obtained without a vast expenditure. The main sewers have been provided at a cost of over £6,000,000; but already these underground arteries are proving inadequate for the huge increase of population which has taken place since the scheme was initiated and completed. Sir Benjamin Baker and Mr. Binnie, after investigation, have reported that two new main sewers are imperatively required, the cost being estimated at about £2,250,000. With this expenditure the sewerage system of London would be available for a population of 7,000,000, or 2,000,000 more than at present. Subterranean canals capable of carrying the sewage to the sea would cost at least £8,000,000; but for the time being

the engineers do not think there is absolute pressure for the inauguration of such a gigantic undertaking until, at all events, the effect upon the Thames of the precipitation works which are not yet in full working order has been fairly and fully tried.

During the ensuing month the Royal Academy propose to fill up the Professorship of Anatomy rendered vacant by the lamented death of Prof. Marshall. Several candidates have been named.

It is now strongly urged in some quarters that the prophylaxis of venereal disease should in all countries of the world be taken up with the same energy as is found displayed in the case of rabies, tuberculosis, smallpox, etc. A writer in the *Therapeutic Gazette* says syphilis is perhaps more important than all these put together.

Dr. Thomson is of opinion that the number of bacteria which produce sulphureted hydrogen from albuminous materials is by no means limited, and by employing appropriate means nearly all of them can be made to produce this gas in cultures in which the action is an aerobic. Nascent hydrogen appears to play an important part in this curious process.

The verdict in the libel action in connection with an advertisement of Mother Seigel's syrup has been confirmed on appeal.

LONDON, March, 1891.

## Abstracts and Selections.

CHRONIC GASTRIC CATARRH WITH INDURATION OF THE WALLS OF THE STOMACH; ACUTE FACIAL ERYSIPELAS WITH HYPERTYREXIA.—Gentlemen: I bring before you this morning a patient who has been under observation some time. This man came to my office two months ago. He looked like a man that was going to die. He was extremely anemic and emaciated, and presented an appearance very different from that of comparative health which you see to-day. The story which he told made me fear that he had organic disease of the stomach with stenosis of the pylorus. At my request he wrote out a history of his case, and of this I will give you a condensed account. He is twenty-eight years of age, weight ninety-nine pounds. He was never robust or strong, and as a child and youth was not prone to attacks of indigestion. While attending college from his



sixteenth to his twentieth year he enjoyed better health and reached his greatest weight, one hundred and thirty pounds. After graduation he engaged actively in a responsible business and soon began to suffer with different dyspeptic symptoms, such as pain in the stomach, sometimes occurring after meals, and gastric and intestinal flatulence, water brash in the morning before breakfast, and the raising of acid mucous matter. The symptoms, as you see, were those of subacute gastric catarrh, and with this there was constipation. His weight declined to one hundred and twenty-four pounds. In the autumn of 1887 he had an attack of jaundice. This was undoubtedly due to the involvement of the duodenum with extension of the catarrhal inflammation into the common duct, causing swelling of the lining membrane and closure of the duct, with obstruction to the flow of the bile and consequent resorption and staining of the tissues. In other words, this was an attack of catarrhal jaundice. It was accompanied by increased evidence of catarrh of the stomach, with loss of appetite and nausea. During this attack the weight declined to one hundred and eight pounds. He gradually recovered, and the weight went up to one hundred and twenty-four pounds. He suffered less from indigestion than before, although at the same time he exercised more care. This improvement is to be explained by the rest and greater care which he was compelled to exercise while suffering with the attack of jaundice. I wish you to note the importance of this long story of gastric catarrh. It seemed to me when I heard this history that it was one of the most encouraging elements in the case, for if these symptoms had been due to malignant disease he would have been dead and buried long ago. The very fact that he had had gastric symptoms for so long was the strongest evidence that they were due to gastric catarrh, and the strongest ground for the hope that it had remained a gastric catarrh.

His weight and strength kept up until May, 1889, then, after some indiscretion in diet, he had an attack of vomiting, followed by nausea and loss of appetite. Any food taken caused severe pain, and there was great soreness and tenderness in the epigastric region. In three weeks his weight ran down to one hundred and eight pounds and he became very weak, and since then he has never been much better. He improved somewhat for a time, but in June, 1889, he contracted a cold and was said to have had pleuro-pneumonia. This kept him in the house six weeks. He then again improved, but his weight did not go above one hundred and eight pounds. In January, 1890, he had an attack of influenza lasting two weeks. He

recovered from this with a loss of two pounds in weight. In March he had a catarrhal attack with fever and indigestion, and his weight went down to one hundred and two pounds. During the past summer he has suffered from business cares and anxiety, leading to loss of sleep, with further diminution in strength and weight, so that when he consulted me his weight was ninety-seven and one half pounds.

For the past six months the symptoms have been flatulence of the stomach and bowels, occasional acidity and water brash, the bowels usually regular, but the intestines have evidently become involved in catarrhal processes. The bowels are sometimes loose, but at other times the stools are hard and in balls; the tongue is coated, there is drowsiness after meals, fullness of the head, and coldness of the hands and feet; he has also chilly sensations of the back; he has become more nervous and does not sleep sound; the sleep is disturbed by dreams and he often lies awake at night.

He never observed any tumor of the stomach until nine months ago, when his attention was called to a hardness in the epigastrium by a physician.

When I first saw the patient he was taking two meals a day, as he found that when he ate three times a day he had increased trouble. These meals had been arranged by himself and were in some respects rather odd. There were many things that he ate with apparent impunity that we should not consider at all suitable. For instance, he ate largely of grapes, taking them at each meal. His diet consisted principally of stale bread toasted soft, raw meat pulp, and eggs, but no vegetables. He also took largely of hot water before meals. I was glad to note the somewhat erratic diet, because it is particularly in cases of chronic gastric catarrh that we have abnormal tastes developed, and patients are able to take articles that would seem to be not the most suitable for them. This is more apt to be the case in gastric catarrh than in solid organic disease. In the latter condition there is lowered digestive power for all articles and there is less liability to the development of these peculiar tastes.

He was much emaciated, and on examining the abdomen I was at once struck by the deposit of pigment in the epigastrium, which he stated had followed the use of hot-water bags. There is, however, no symptoms of Addison's disease of the supra-renal capsules. In that disease the discoloration of the face and hands is marked and the pigment deposit occurs where there is pressure or irritation. As I have said, there are here no symptoms pointing to Addison's disease, but I have frequently noticed that where there has been prolonged irritation

of the abdominal nerves, as in some cases of uterine disease and in many cases of peritoneal irritation, this tendency to the abnormal deposit of pigment is a frequent accompaniment, and that wherever the skin is irritated a heavy deposit of pigment is prone to occur. In the present instance I associate this deposit with the view that there has been long-standing irritation of the gastric nerves.

On palpation there is found in the epigastrium abnormal pulsation of the aorta, but no evidence of disease of the vessel. There is dilatation of the stomach, and on careful exploration there is found positive induration. This extends to within an inch of xiphoid cartilage and covers an area of not less than three inches each way. I can not describe it as a tumor such as I could grasp in my fingers, but it is a distinctly defined hardening which passes off gradually each way. This is not very tender on pressure.

The nature of this hardening has given us a great deal of anxiety. Here we have a case of progressive emaciation with a loss of thirty-three pounds out of one hundred and thirty pounds, equivalent to a loss of twenty-five per cent of the body weight. With this there has been progressive debility and loss of digestive power with occasional vomiting, marked constipation of the bowels and dilatation of the stomach and a hardness in the epigastrium. It is no wonder that with such signs and symptoms the question of cancer of the stomach rose prominently in our minds as we studied this case. As an aid in the diagnosis we have studied the secretions of the stomach, and today I shall show you the manner in which this is done. We have trained the patient to swallow the stomach tube, and he does it readily. A large tube is used in preference to a small one, as it is easier for the patient. By explaining to the individual the importance of this measure and getting him interested in it, there is usually no trouble. We have given the man a test meal composed of starches and albumen, a soft egg, milk, bread, and a little butter. This was done two or three hours ago. Now, with the tube introduced, we draw off the contents of the stomach and test them to determine whether or not the normal elements of the gastric juice are present or absent.

I have already told you that in cases of cancer of the stomach it is always found that hydrochloric acid is deficient or is entirely absent from the contents of the stomach removed three hours after the administration of a small test meal such as I have described. In the normal stomach hydrochloric acid is found, and in many cases of chronic gastric catarrh it is in excess. In no instance since this test has been

proposed has hydrochloric acid been found in cases which proved to be cancer of the stomach. There are many cases in which this additional means of determining the presence or absence of gastric cancer is of the greatest importance. We must remember that hydrochloric acid is sometimes absent in other diseases than cancer, and that therefore the absence of hydrochloric acid is not proof that cancer is present, but, on the other hand, the presence of hydrochloric acid, and particularly the presence of acid in excess, is the strongest possible proof that cancer is not present. In this case hydrochloric acid is in excess.

On several occasions, after emptying the stomach and while the tube was still in position, we have injected warm water containing bicarbonate of soda or salt and washed out the stomach. Where the patient has been accustomed to the introduction of the stomach-tube the whole process is accomplished in a few minutes. The presence of an excess of hydrochloric acid is therefore against the supposition of cancer. The long history is also against this idea. It is true that cancer of the stomach may develop in a patient who has suffered from gastric catarrh for a long time, but this is not the rule. The history in cancer is usually that there has been an insidious development of dyspeptic trouble without apparent cause, which continues uninfluenced by treatment. The cachexia develops, and finally, on examination, a growth is found. This man has from a child had a weak stomach, and for at least three years he has had marked symptoms of gastric catarrh complicated with intestinal catarrh, and on one occasion with hepatic catarrh. His weight has gone as low as one hundred and six pounds and again come up to one hundred and twenty-four pounds. This has happened on at least two occasions. There has not been the remorseless downward course that we usually see in cancer. I admit that when you get hold of a case of cancer where proper diet and management has not been employed there may be great improvement manifested when proper treatment is adopted, and even without this there may be marked fluctuations from time to time, and these may be so great as to lead you into the hope that a mistake in diagnosis has been made, but they are moderate and only temporary. They are not as decided as have occurred in this man's case, and every time that this patient suffered a relapse there was a reason to explain its occurrence. There was always some indiscretion or a catarrhal attack. I dwell upon these points as showing the importance of a careful analysis of the past history of the case. Then there is dilatation of the stomach, which, however, is not marked.



I have not time to-day to discuss in detail the modes of determining dilatation. It may be ascertained by noting how far the sound may be passed. A small quantity of bicarbonate of soda followed by a little tartaric acid will cause distension of the stomach, and its outlines can then be noted by percussion. It may also be determined by introducing liquid and noting to what point the gastric borborygmi descend. Another plan is by careful percussion, noting where the gastric tympani passes into the intestinal tympani. These are some of the ways by which we ascertain the existence and extent of dilatation of the stomach. In this case, as I have said, the dilatation is not extreme.

It is important to remember that dilatation does not always come from organic stricture. It sometimes results from weakening of the walls of the stomach due to prolonged chronic inflammation. The constipation in this case was not as obstinate and unyielding as we expect to find it in organic mechanical obstruction of the pylorus. In this condition the constipation steadily becomes more marked. In this instance, while there was a tendency to constipation there would be from time to time attacks of diarrhea. This hardening of the stomach is not at the pylorus, but on the anterior wall of the organ. There might be an epitheliomatous ulcer of the anterior wall, and at the same time the pylorus be normal. At the same time we know that where there is cancer of the wall of the stomach near the pyloric segment, such as to cause dilatation of the stomach, there is usually marked obstruction of the pylorus, so that if the dilatation in this case came from pyloric obstruction it would be accompanied by greater constipation. The loose bowels and moderate constipation were therefore a source of great satisfaction to us.

In the next place we tested the man therapeutically. We altered the diet and corrected the state of the stomach, and at once there was a gain in weight and improvement of the crasis of the blood. He has gained three and a half pounds since I first saw him. So far as this has weight it is in the direction of encouragement.

What is this mass that we feel? Can chronic gastric catarrh give rise to such thickening? It is rare, but there occur cases in which as the result of prolonged catarrhal inflammation the deeper coats become involved and there is thickening and induration. If this occurred at the pyloric orifice it might lead to organic stenosis and fibroid contraction of the pylorus, and it might be associated with sufficient thickening and induration to be palpable to the touch. Such cases, while not very common, do exist. There are cases where all the symp-

toms of pyloric cancer develop themselves after just such a history as we have had here, in which, after abdominal section and gastrotomy, the pyloric ring has been found so small as not to admit the passage of the little finger, yet without any cancerous growth at all. The dilatation of this stricture has frequently been followed by restoration to health. This is the operation suggested by Prof. Loretto and now known by his name. This operation we considered in the present case, but we decided to first try the effect of simple remedial measures. The gain has been such as to justify a continuance of these measures. If, however, he should cease to improve and fall back, I would, believing so firmly as I do in the inflammatory origin of this trouble, urge the performance of the Loretto operation.

Under the impression that this is an inflammatory thickening I have given the man iodide of potassium in saturated solution, of which he takes three drops (each drop being equivalent to one grain) in water after meals. I also ordered olive oil, in the hope that he might be able to digest it, and with the hope that its mechanical influence might be favorable in the presence of thick mucous secretion. He began with teaspoonful doses twice a day, and digests it perfectly. I have tried to have him take three meals a day, but his digestion is so slow that this did not answer.

Under this treatment the man is doing well, and I am encouraged to hope that my diagnosis of chronic gastritis with fibroid thickening of the wall of the stomach, but not beyond the point of remedy, is correct. It will, of course, take a long time to cure the condition, but we have an intelligent patient whose co-operation is invaluable. I shall show you this man again in the course of a couple of months.

*Acute Facial Erysipelas with Hyperpyrexia.* I shall for a few minutes call your attention to this patient, who was admitted to the hospital on the 6th of this month, that is, nine days ago. Her history dates back some five months. She was first taken sick in June with what probably was an attack of influenza, and since then she has had pains through the body, more or less cough and the like, but these symptoms do not concern us to-day. She was admitted on the 6th of November, and on the 10th she appeared to be about as well as usual. On the morning of the 11th she had a slight chill, with a rise of temperature reaching 102° at night. She complained of some distress about the chest and stomach. On the morning of the 12th it was found that she had developed facial erysipelas, the swelling beginning at the nose and in the course of a few hours extending to the right cheek and eyelid, but not completely closing

the eye. She was at once isolated, and application of camphor dissolved in ether applied to the affected area. The erysipelas, however, still continued to spread, although less rapidly, and her temperature reached  $104^{\circ}$  on the night of the 12th, with a corresponding rise in the pulse to 120 and an increase in the respiration. On the 13th the area of erysipelas had not spread a tions of equal parts of tannic acid and powdered great deal, but the affected parts were more swollen and small blebs had formed on the right cheek. The temperature had reached  $105.8^{\circ}$  in the afternoon. She was then sponged with cool water and the temperature came down to  $103^{\circ}$ . On the 14th the swelling had extended, as it is apt to do in erysipelas, and the left cheek was attacked. The temperature reached  $106^{\circ}$ . An apparatus consisting of a coil of small lead pipe fitted to the head was applied, and cool water was allowed to flow through it continuously. In this way the temperature was reduced. The latter part of the 14th the temperature came down to  $103^{\circ}$ . It rose a little through the night, but this morning, the 15th, it is  $102.2^{\circ}$ , a material reduction from the high temperature which had preceded. There is also some reduction in the erysipelatous swelling to-day. This morning the tongue is clean. There is no delirium. The temperature is lower, but the cold water apparatus applied to the head is still being used.

I am glad of the opportunity of showing you this case. There is scarcely any difficulty in the recognition of facial erysipelas. The constitutional symptoms often come on a few hours before the local inflammation appears. Sometimes there will be a pain referred to the glands in the throat, and they will be found to be a little swollen and tender, and soon afterward the erysipelas manifests itself. It is difficult to say here whether the glands are enlarged or not on account of the general swelling. I think, however, that the glands at the right angle of the lower jaw are enlarged. The local inflammation nearly always first appears at one of the apertures of the face, as the ear, the angles of the eyes, the angle of the mouth, or one of the nostrils, and I take it that this is because there is apt to be a little abrasion at one of these points. There may be a little crack of the skin or of the mucous membrane, which serves as a focus or starting point from which the local inflammation spreads. It may be that the poison of erysipelas has there gained entrance to the system. Starting from such a point, the tendency is for the inflammation to spread, and in facial erysipelas to spread until both sides of the face are involved, the scalp is implicated and the disease passes over toward the nape of the neck; it then subsides and be-

gins to subside at the point where it came out first. After subsidence it sometimes reappears and the case goes through the same course. In very violent cases of erysipelas there may be suppuration. Looking at this woman's face you can see how violent the inflammation has been. In many places there are large blebs. The skin of the upper half of the ear has separated, forming a large blister. There are also some vesicles on the right cheek and at the root of the nose. As I have said, where the inflammation is still more violent there may be suppuration in the submucous cellular tissue making the phlegmonous form of erysipelas. In this case there does not seem to be any tendency to suppuration.

In regard to the nature of erysipelas there is a general agreement that it is an infectious disease, and that it depends upon infection of the system by a specific poison, and that this specific poison is a micro-organism in all probability. There has been during the past ten days another case of erysipelas in the hospital. It was that of a man who was admitted ten days ago with a fracture of the skull and erysipelas present at the time of admission. It was necessary to trephine in this case, but the patient is doing well. There has been no other case of erysipelas in the surgical wards. This woman had no communication with the man, except that the same nurse who attended the surgical patient attended this patient also for a time. This, however, seems to be a very slight connection in the case of a disease the poison of which is so slightly portable as that of erysipelas. The fact that the patient had been in the hospital for several days and entirely apyretic, makes it seem as though the disease had developed here. Although we can trace no positive connection between this case and the one in the surgical ward, yet they serve to illustrate the importance of antiseptics and isolation in the management of erysipelas.

Some years ago it was quite frequent for hospitals to suffer frequent epidemics of erysipelas, sometimes so severe as to necessitate the abandonment of a ward, which could not be again used until thoroughly cleansed and scraped and completely renovated. Now, under rigid antiseptics, surgical erysipelas is a thing almost unknown in hospitals. It must also be remembered that in the case of trephining the man did not acquire erysipelas after he came to the hospital, but was suffering from it at the time of admission.

This patient then presented the typical symptoms of a sharp attack of acute erysipelas. A chill, followed by fever amounting to hyperpyrexia, with the temperature within three days reaching  $106^{\circ}$ . This was controlled by the use



of external applications of cold, especially to the head. When in erysipelas very high temperature arises there is great danger of serious cerebral symptoms, such as delirium and stupor. The delirium and stupor which sometimes appear in severe cases of facial erysipelas are much more likely to be due to the high temperature than to any direct extension of the inflammation from the scalp to the skull. I will not deny that there is in some cases a slight meningitis or meningeal congestion, as a complication of severe facial erysipelas. That is true, but in the great majority of cases the serious cerebral symptoms can be accounted for by the hyperpyrexia better than by a direct irritation of the membrane of the brain. Let me warn you, also, that in erysipelas, as in every other infectious disease, there is great danger of infective nephritis. And in a large proportion of cases of bad erysipelas you will find albumen and casts, and in such cases cerebral symptoms are very apt to appear. In the present case the urine is normal and there are no signs of renal involvement. The high temperature in this case was promptly reduced by the external application of cold, by sponging off the body, and the application of cold water to the head by means of a suitable appliance, and there have been no serious cerebral symptoms. In addition she has taken large doses of the tincture of the chloride of iron, thirty drops every two hours, given as regularly as her irritable stomach would allow.

The extension of the erysipelatous inflammation has not been as rapid as is usually the case. Whether or not this has been due to anything in the treatment I am unable to say. The two things that we have done have been, in the first place, to make protective applications of tannic acid and camphor dissolved in ether, and in the second place, to keep down the temperature of the part locally. As a rule, applications to check the spread of erysipelatous inflammation are unsatisfactory. If to either of these measures any value is to be attached, I but attribute it to the judicious use of the cooling apparatus. The patient is isolated and strict antisepsis is observed. She is doing well and no doubt will recover.—*Clinical Lecture by William Pepper, M. D., North Carolina Medical Journal.*

**PHYSIOLOGICAL ACTION OF ATROPINE.**—Dr. Reichert's paper has not only a freshness about it which makes it interesting, but also an apparent antagonism to older views, which leads me to make some comments lest clinicians should think physiological therapeutics a mere searching for a will-o'-the-wisp. It is a fact, however, that the physiological portion of the essay is,

in most important matters, not discordant with previous conclusions. The clinical portion, coming from the pen of the pure physiologist, carries less weight; and many years of study of the records of cases and much personal observation leads me to disbelieve the correctness of some of Dr. Reichert's conclusions concerning the effects of atropine and human opium poisoning and concerning the symptoms of atropine poisoning.

It is certainly true that atropine does not always increase respiration in opium poisoning; but the general professional belief that when it does do good it increases the frequency of the respiration is, according to my reading, in accord with the clinical facts and the clinical records; also, I still believe that ordinarily in atropine poisoning the respiration is hurried.

Leaving, however, this clinical matter as comparatively unimportant, we come to the physiological portion of the paper, that portion which bears the great weight of Dr. Reichert's physiological reputation. The important conclusion is reached in the language of the author: "Thus, clinical, experimental, and toxicological data demonstrate clearly that atropine can not be considered a reliable respiratory stimulant;" on the opposite page, however, facing this sentence, is the positive (and, as I believe, correct) statement: "The fact that the rate is always increased after section of the pneumogastric nerve is conclusive proof that the drug stimulates the respiratory centers."

I do not propose to enter into any further discussion of this matter, but think that it ought to be understood that, so far as respiration is concerned, the physiological conclusions of Dr. Reichert are, that atropine stimulates the respiratory centers, but paralyzes the peripheral ends of the pneumogastric nerve. Any reader who will take the trouble to look on page 214 of the seventh edition of my "Therapeutics," will find it there stated that "atropine causes a direct stimulation of the respiratory centers;" and also, "a paralysis of that portion of the pneumogastric nerve which is connected with the function of respiration." There may be difference of opinion between us as to the exact clinical value of atropine as a respiratory stimulant, but as physiologists we are in accord.

In accordance with Dr. Reichert's opinion is the fact that the recent growth of our knowledge indicates that atropine will have to be dethroned from the first place which it has held among practical respiratory stimulants. Ammonia, it is true, is too fugacious and too locally irritant to be of first rank at the bedside. Cocaine at this moment seems to bid fair to be of service, but its exact usefulness is not yet

determined. The great value of strychnine was, however, demonstrated upon anesthetized animals by myself last summer, and since then I have proved its power in animals narcotized with chloral or morphine; while the remarkable case of opium poisoning published in this magazine by Dr. Clara Dercum must be fresh in the minds of readers.

The second portion of Dr. Reichert's article does not seem to need discussion here, dealing as it does with purely physiological points, and, after all, except in regard to the accelerator nerves, not differing essentially in its important conclusions from the older opinions. Dr. Reichert certainly shows that the theory that the accelerator nerves are acted upon by atropine is unproved, and is at present unnecessary, because the physiological facts upon which it has been based are best explained as being the result of the direct stimulating action of the drug upon the heart. The theory of the stimulation of the accelerator nerves originated before it was believed that small doses of atropine stimulate the heart directly.—*H. C. Wood, M. D., University Medical Magazine.*

**A CASE OF TETANUS: RECOVERY.**—On the 22d September, James A., aged thirty-five, a fisherman, belonging to Peel, Isle of Man, was admitted under the care of Dr. Everly Taylor, suffering from well-marked symptoms of tetanus. In August last his left hand was crushed between two boats, producing a wound three inches long at the level of the heads of the second and third metacarpal bones. For this he was treated as an in-patient at the Berwick-on-Tweed Infirmary for five weeks, and left that institution (with the wound not quite healed) to join his boat. He fished off Hartlepool for some days, whence he came to Scarborough and sought admission here. On inquiry the patient admitted he had indulged freely in alcohol, and had syphilis about twenty years ago. On one leg there was a fetid tertiary ulcer, and on both legs there were several pigmented cicatrices. He was unmarried. Patient said that when he was off Hartlepool he had pain in the back of his neck, and then the "jaws began to contract;" the legs felt very stiff, and he found he could not swallow. On examination it was found that he could not separate his teeth more than a quarter of an inch; there was a very peculiar anxious look, and the masseters and the recti abdominis were extremely rigid. The wound on the hand was covered with small unhealthy granulations, and was very foul-smelling. Before he came into the hospital he had taken lodgings in the town where Dr. Everly Taylor had seen him in a state of opisthotonos. His temperature on ad-

mission was 98.6°, and was never above normal throughout the course of the disease. He was ordered a mixture of ten minims of the tincture of cannabis indica, fifteen grains of chloral and bromide of sodium, five minims of chloric ether, with mucilage and water, every four hours. As to diet, he had three pints of peptonized milk, two pints of beef-tea, two eggs, six ounces of brandy, and six ounces of port wine daily. The wound on the hand was dressed with starch poultices for the first fortnight, and then with boracic ointment; the ulcer on the leg was also washed and dressed. The patient complained of "spasms," but steadily improved under the treatment. After October 3d, stimulants were reduced to two ounces each of port wine and brandy daily; minced meat and bread were given on the 7th. On the 15th, pills of Calabar bean, one sixth of a grain (gradually increased to half a grain) three times a day, were ordered. The patient could sit up on the 10th, and had full diet on the 19th. On the 20th the wound on the hand had quite cicatrized, and the patient was discharged on November 1st.

**Remarks.** Of late the theory has been gaining ground that tetanus is of microbic origin, and that the microbes produce an alkaloid which acts on the nervous system. The fact that division of the injured nerve at the seat of injury has sometimes been found curative does not necessarily disprove this theory, for doubtless with the division of the nerve precautions are taken to render the wound aseptic so as to prevent the development of the microbes. The absence of any definite lesions in fatal cases also lends support to this view. According to Dr. George Kemp, there are three essential objects to be attained in the treatment: (a) The destruction of the nidus of development of the bacilli; (b) the elimination from the system of the products of the bacilli; and (c) the calming of the nervous system.—*Dr. A. C. Dutt, London Lancet.*

**THE USE OF THE CHEMICAL PRODUCTS OF THE DIPHTHERIA BACILLUS AND OTHER DEFINITE CHEMICAL COMPOUNDS IN THE PRODUCTION OF IMMUNITY FROM DIPHTHERIA.**—While the medical world is still deeply interested in the progress and ultimate success of Koch's method of treating tuberculosis, investigators have turned their attention to the production of immunity from diphtheria in small animals. Three different articles on this subject have appeared almost simultaneously, one by Behring (*Deutsch. med. Wochenschr.*, No. 50, 1890), from Dr. Koch's laboratory; another by Brieger and Fraenkel (*Berlin. klin. Wochenschr.*, No. 49), and the third in our own country, by Gray and



Schweinitz, of Washington (Medical News, January 3, 1891).

All of these workers report success in their experiments, viz., the production of immunity from diphtheria in guinea-pigs.

Behring describes four different methods as follows:

1. Iodine trichloride, in the proportion of 1 to 500 was added to a four weeks' culture of the diphtheria bacillus and the mixture allowed to stand sixteen hours. Guinea-pigs were then treated by subcutaneous injections of the solution, and thus rendered insusceptible to the disease by direct inoculation with the germ.

2. In making *post-mortems* of animals dead from diphtheria, a small quantity of an amber-colored substance is often found in the pleural cavity. This exudate does not contain the germ, and can be traced and shown to be a product of the germ, probably albuminoid in character. The substance is very poisonous, but if small quantities are injected into guinea-pigs several times, the animals are rendered insusceptible to diphtheria.

3. After trying a number of compounds of antiseptic properties to check the disease after animals had been inoculated with the germ, Behring found iodine trichloride to be most effective. By injection of a dilute solution of this substance, diphtheria in guinea-pigs could be checked in a few hours.

4. Hydrogen peroxide was found to be an excellent material for immunizing animals, though its use in treating the disease was not satisfactory.

With the exception of the pleural exudate, these compounds have all been used before in treating diphtheria, but Behring distinctly states he has not yet found a substance which is satisfactory for diphtheria in man. Brieger and Fraenkel, Gray and Schweinitz have been working in exactly the same line with the chemical products contained in or isolated from the sterilized culture liquids of the germ.

In December, 1888, Roux and Versin (*Annales de L'Institut Pasteur*, No. 12, pp. 629-661) began an exhaustive study of the diphtheria bacillus as described by Klebs and Löffler. In the course of their experiments they found that they could produce paralysis and death in animals by treating them with sterilized cultures of the diphtheria bacillus. In a later paper (*ibid.* June, 1889) these authors conclude that the poisonous principle in the solutions is a ferment, and not an alkaloid, as they at first supposed. In general, they say death is caused by the fact that the poison is produced on the mucous membrane and then circulated through the system. Now, from artificial cultures of the Klebs Löffler bacillus, Brieger and Fraenkel,

and from artificial cultures of Klein's bacillus (probably identical with the Klebs-Löffler), Gray and Schweinitz have isolated albumoses, which are regarded as the active poisons formed by the germs.

By treating guinea-pigs with the albumose and then inoculating them with the germ, the first two investigators appear to have been unsuccessful, the other two fairly successful. With sterilized cultures both sets of experimenters have produced immunity in guinea-pigs. Brieger and Fraenkel succeeded best with cultures which had been heated to 65°-70° C. Gray and Schweinitz do not state how their cultures were sterilized—probably with a Pasteur filter.

Whether the chemical substances formed by the growth of the germ will also be effective in checking diphtheria in man is a point not yet decided. In the case of a disease, the course of which is so short, there is less to expect in the way of success than in diseases where there is time enough for the immunizing substances to produce their effect. But in the present stage of science no reasonable theory should be condemned until practically disproved.

The problem, at any rate, is one which the American investigators are endeavoring to solve, and, it is to be hoped, with prospects for success.—*University Medical Magazine*.

**MATERNAL IMPRESSIONS.**—The influence of maternal impressions upon the fetus *in utero* is a matter not only of scientific interest, but also of certain practical value. From the time of Hippocrates it has been held by the medical profession that psychical or physical impressions made upon the pregnant woman gave rise to marks, deformities, and malformations evident in the child at birth. Such a view is also firmly implanted in the popular mind, as perpetuated in the term "mother's marks." The problem is one difficult of solution. Though it may not be possible to explain the occurrence of abnormalities in the fetus as a result of influences acting upon the mother during pregnancy, the first step in that direction would be the collection and careful analysis of a large number of records of cases, so as to determine whether the association be merely accidental or coincident or related as cause and effect.

The Edinburgh Medical Journal, for January, 1891, contains an address read by Dr. J. W. Ballantyne before the Edinburgh Obstetrical Society, in which he reviews the subject of maternal impressions, and reports four cases. In one, a woman having an aversion to frogs was terrified early in her first pregnancy by a dead frog thrown at her by a friend. At term she gave birth to an anencephalic child. Be-

coming pregnant a second time she was again delivered of an anencephalic infant. The significance of this case is lessened by the fact that the father, by a first wife, had a hydrocephalic child. In the second case, a woman who was struck, during the third month of pregnancy, by a deaf-and-dumb peddler, gave birth to a child which at the age of three was yet deaf and dumb. In the third case, a mother gave birth to a child minus three fingers of the left hand. During her pregnancy, she had been alarmed by a wood-chopper falling heavily on the same three fingers of the left hand of another child. In the fourth case, one son resembled physically, mentally, and personally a maternal uncle, while a second resembled the maternal grandmother. In each instance the relative in question had been a source of anxiety during the respective pregnancy.

Dr. Parvin, in the second edition of his work on Obstetrics, also gives four cases of maternal impressions. To arrive at some definite conclusions upon this subject, it is recommended that the following points be inquired into: The period in pregnancy at which the impression was made; the character of the impression; the channels through which the impression was received; the mother was conscious of the impression and anticipated a defect in the child; the duration of the impression; the influence of heredity.

The practical deductions to be drawn from this subject, independently of its explanation, are, that during pregnancy a woman should lead a life of tranquility, avoiding excitement, relieved of anxiety, spared depressing emotions, and provided against deprivation and want. *Medical and Surgical Reporter.*

**A CASE OF EXOPHTHALMIC GOITRE ENDING FATALLY FROM SUDDEN PRESSURE ON THE TRACHEA.**—Through the kindness of Dr. Humphry Davy I am able to record this case, which, so far as my researches extend, seems to be unique.

In March last I saw the patient, Mrs. N., aged thirty-five, who complained of a swelling in the neck, nervousness, slight difficulty of breathing, with stridor and cough. She stated she was pregnant. Her own health and family history were good. Her neck, she informed me, had been swollen for two years (I since hear it was longer), and measured twenty-three inches in circumference. The swelling consisted in a softish elastic mass, larger on the left side than the right, and with a small central mass. There was no doubt the swelling was a bronchocele. The eyes showed some exophthalmia and dilated pupils; Von Graefe's sign present to a slight extent; there was no tremor. The

pulse was 120. The larynx showed nothing abnormal, but it was impossible to see below the cords with the laryngoscope. From her condition and the deep origin of the growth, no interference was recommended. In September, 1890, I had another opportunity of examining her after delivery, and found the symptoms abated, the neck only measuring twenty-one inches in circumference. In the early morning of December 1, 1890, I was called to the patient's house, and found her lying on a bed, unconscious, breathing rapidly and with considerable stridor, the lips and face cyanosed. Dr. Davy, Mr. Symons, and myself were sent for. We learned that at half-past ten the previous night she had gone to bed quite well. In about an hour she got up to attend to the baby, and was seized with severe difficulty of breathing. She got back to bed, struggled violently, and became unconscious in the course of five minutes. Tracheotomy was determined on, though the patient was evidently moribund. The tube was inserted by Dr. Davy, who performed the low operation. There was scarcely any bleeding during the operation. One inspiration was taken through the tube, and artificial respiration resorted to without avail.

A necropsy was granted, which I performed in the afternoon. It was then found that the right lobe of the thyroid was attached to the trachea firmly, and the size of an egg. The left lobe about double the size, and implicating the deep structures of the neck. The isthmus was much enlarged, and a supplementary lobe of the gland lay on the thyroid cartilage. On removing the larynx, trachea, and thyroid gland, one saw on looking up the trachea that the right wall was bulged in toward the left, leaving only a mere chink to breath through. The bulging corresponded with the right lobe of the thyroid gland. On splitting up the trachea, the cartilages at the obstruction were softened and had lost all their resiliency, thus aiding the collapse of the tube. The mucous membrane was injected.

I have considered this case worthy of record, as showing that, although the cartilages of the trachea had been softening for some time, the actual "caving in" was in the end quite sudden. *Dr. H. Montgomerie, London Lancet.*

**PYOKTANIN STAINS.**—Merek's Bulletin says that stains with pyoktanin may be removed from the hands by washing with spiritus saponatus, or with a ten-per-cent solution of castile soap in alcohol, or with liquor sodæ chlorinatæ. Pyoktanin pencils, when broken, are mended by simply wetting the severed surfaces with water, and pressing them together gently; when dry they will cohere.



# The American Practitioner and News

"NEC TENUI PENNÄ."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE FUTURE OF THE ASSOCIATION JOURNAL.

The Cincinnati Lancet Clinic has these pertinent remarks at the close of an article on the question of the removal of the Association Journal to Washington:

"The possibilities of the Association Journal are far beyond that of any similar publication in the world. To be the accepted leader and organ of professional thought, it must be both fearless and aggressive in its management, with a policy and a purpose that will rally to its support the very best men in our profession.

"Wide-awake journalists who are willing to say good words of the Association and its journal are very much inclined to frown when they see pages of advertisement matter in the journal of notorious quack preparations that are posted in the loudest of colors and illustrations on every bill-board in our land. The managing editor of every journal is and should be held responsible for the character of the advertisements he admits to his pages. Because such an advertisement appears in the Association Journal, it seems to justify other journalists, not overly qualmish, in soliciting the patent medicine man for his favors. While the Association may cater to the advancement of the

welfare of the Association and of our entire profession in its reading pages, other journalists look askance when it enters the advertising field as a competitor for legitimate business of that nature."

## THE AMERICAN MEDICAL ASSOCIATION.

As everybody knows, the American Medical Association will begin work at Washington, D. C., on May 4th. In consequence of codal and other differences (with other influences) among the Fellows, interest in the national assembly has much abated in recent years, and the working members are making commendable effort to secure a large attendance at the coming meeting with a view to adjusting differences, promoting harmony, and investing the Association with such dignity as naturally belongs to a truly representative body of the physicians of the United States. In order to attain this *desideratum* the attendance must be representative, and the scientific workers must be at the front, while medical politics and politicians must be excluded or kept in the rear.

But this consummation can never be realized in the face of general apathy or indifference, and we earnestly urge such physicians as may come under our influence to do their part by attending the coming meeting, even if it be at considerable sacrifice.

## A COMMENDABLE MOVE.

Among the many pleasant evidences that our new mayor intends to make his a model administration, is a move on his part and that of Health Officer Galt to put a stop to the sale of diseased meat and impure milk in the Louisville markets.

At a recent meeting of the General Council an ordinance was introduced imposing heavier penalties than are now in force against the selling of diseased meat and impure and adulterated milk, and also providing for the appointment of an inspector of live stock. It is to be hoped that the move for meat and milk inspection, which has been gathering force very rapidly of late, will soon become general throughout the country.

### Notes and Queries.

**THE TUBERCLE BACILLUS.**—Those members of the Pathological Society who attended the usual fortnightly meeting on Tuesday night were amply rewarded by the very complete demonstration of the morpho-logical varieties of the tubercle bacilli that was given by Prof. Crookshank. The specimens themselves gave ample evidence that Prof. Crookshank is a master of the technique of mounting and staining, and even the most unbelieving had evidence placed before them which must compel them to accept the fact that tubercle bacilli are undoubtedly associated with tubercle by that relation, accidental or causal. Turning from the microscope to the cultivation specimens, such observers would be equally impressed with the fact that as the outcome of the experiments and observations of a large number of workers we have at length gained a certain insight into the conditions that are necessary for the growth of the tubercle bacillus outside the body.

The paper itself is given in another part of our present impression, but it may be useful to indicate in brief outline the more important conclusions that are to be gathered from it and the discussion that followed. It is evident that, although chemists, bacteriologists, and pathologists are working to a common end, each emphasizes somewhat different points. On the one hand we have the bacteriologist taking up rather the botanical aspect, cultivating the tubercle bacillus in different media, obtaining different forms on these media, and retarding or increasing the rate of growth and development by the addition of certain substances. They, in fact, study the organism as a saprophyte, and are contributing most remarkable facts to our knowledge of the history of the organism outside the body. When, however, on the other hand, the chemist comes to consider the action of the organism as a parasite, the facts obtained by the botanist are for the moment of comparatively little value, as Dr. Sidney Martin indicated. All the knowledge that has yet been obtained in connection with the action of the organisms on the animal economy points to the fact that they do not act in any way except through their poisonous pro-

ducts. These products are derived entirely from the breaking down of albuminoid substances. It may be, of course, that some of them are only one or two removes from the higher albumens; while others may be looked upon as the later products of the decomposition of this same material by special organisms. It is evident, therefore, that the specific toxic functions of a parasitic organism can only be brought into full play when it is placed in a medium that contains sufficient albuminoid material on which the organism may act to produce the specific material. Of course, it may be objected to Dr. Martin's statement that alkali albumen (to which he would add the special salts required) is probably one of the best nutrient media for the growth of the tubercle bacillus in all its strength, and that alkali albumen does not occur as such in the body, just as fibrin does not; but to this may be answered that, although fibrin does not occur as such, the constant elements of which it is composed are undoubtedly present, and that the organism has therefore only a little more or a little less work to do to obtain the same results.

To the physician, however, who has to deal with the disease in both its etiological and pathological aspect, something more than either the chemist or the bacteriologist tells him is necessary. He has not only to study the conditions under which the organism is developed outside the body, the method of invasion of the tissues by the tubercle bacillus, the local changes to which it gives rise, and the general or constitutional symptoms that result, but he has also, if possible, to trace the phylogenetic relations of the organism to see how its specific activity may be modified, and to apply the results of the experience already gained to the improvements of methods of treatment, whether by inoculation or by other means; in fact nothing must escape his notice, and no means of increasing his knowledge of any phase of the life of the organisms that produce disease can be neglected or cast aside as unimportant. The tubercle bacillus within the next year or two will receive more attention than any other of the micro-organisms. It will be studied by competent and incompetent observers; the most



contradictory results will be obtained; we shall be told that the tubercle bacillus forms enzymes, albumoses, tox-albumens, and ptomaines. It will be argued that its growth takes place most luxuriantly under certain conditions, and that certain other conditions are absolutely inconsistent with any growth at all. Let all such very positive statements be taken with reserve, for it is becoming evident that if care is taken to make a transition by sufficiently easy stages, tubercle bacilli, like many other organisms, may be cultivated under very different conditions as regards soil, temperature, etc., and that consequently the resulting products are equally varied. Thanks to the younger workers in physiological chemistry in this country, a new school is gradually being formed, and it is evident that much more accurate and valuable data than we have hitherto possessed are being gradually accumulated. We may, in fact, look forward to a comparatively new development of bacteriological science as coming within the range of practical medicine—a development that, in its bearings on medical practice, must have most far-reaching results.—*London Lancet*.

CINCINNATI CORRESPONDENCE.—Drs. C. D. Palmer and Geo. F. Allen each have a child under their charge at the Cincinnati Hospital, prematurely born, being nourished in the Tarnier incubator. Both children are doing well, and the incubator seems to be a success. An old negro woman in Cincinnati anticipated the Tarnier incubator some years. She had a number of premature births, and always, to her great grief, lost them. Finally she remembered how the 'possums did down in Old Kaintuck, and when her next baby was born she tied it in cotton close to her body and kept it there two months. This child is now living.

Death has been busy in Cincinnati during the past winter. Three prominent members of the medical profession have died. Dr. Benjamin F. Richardson was long known as one of the most successful practitioners of medicine, and was at one time a professor in the Medical College of Ohio. Dr. John Davis was one of the founders of the Miami Medical College, and for many years Professor of Anatomy, and later of *Materia Medica*. He was one of the

founders and president of the Union Central Life Insurance Company, and president of the Ohio Humane Society and the Law and Order League. The third in the list was Dr. Charles A. Miller, for twelve years superintendent of Longview Asylum for the Insane.

The Dawson prizes were contested for the eighteenth annual time at the Good Samaritan Hospital recently. These consist of prizes given the students of the Medical College of Ohio in dissecting, drawing, and bandaging. The contest was quite a spirited one, and the results, though sealed for the present, will be divulged on Commencement night. A very beautiful feature was the speeches made after the contest. Dr. C. G. Comegys was called upon, and described the students of his time and those of the present. In his time the students sat with their hats on during the lecture. He then referred to the contest and the contestants. He said the doctor stood nearer the heart of humanity than any other class of persons. He referred to the fact that medicine is broad and knows no State lines or politics. The doctor is not a prisoner of war; he is too human for that. The speaker had often asked prisoners of war, after our late conflict, how the doctors had treated them. The universal answer was, "Well, fully as well as they could under the circumstances, and that they were always bemoaning their scant means of mitigating their suffering." After the war was over the first to stretch the hand of friendship over the red field of war was the medical profession. They invited the restoration of the National Assemblies. At Detroit, in 1866, Dr. D. W. Yandell, of Louisville, was elected president, and the next year the meeting was held in New Orleans. The preachers are fighting yet. Major General W. A. Quarles, of Clarksville, Tenn., an ex-Confederate, was present as a patient of Dr. Dawson's, and was called on for a speech. He responded with true Southern warmth and feeling. He lauded the army surgeon in glowing and grateful terms. He had been under his care and received great benefit. He thought the medical men had a right to be proud of their broad humanity and of the fact that they were the first to meet in fraternal association after the war and shake hands across

the fields still red. He related the stirring instance which occurred at the time of Lincoln's assassination, when he was a wounded prisoner of war in the North and was attacked by a blind and infuriated mob, and how bravely he was defended by Union surgeons, nurses, and convalescent soldiers. After listening to some more pleasant remarks the guests adjourned to the dining hall, where an elegant feast was spread for them by Dr. Dawson.

The election of officers at a recent meeting of the Cincinnati Academy of Medicine resulted as follows: President, Dr. Giles S. Mitchell; First Vice-President, Dr. Geo. W. Ryan; Second Vice-President, Dr. Thad. A. Reamy; Recording Secretary, Dr. Jas. M. French; Corresponding Secretary, Dr. E. S. McKee; Treasurer, Dr. Geo. E. Jones.

Dr. Thad. A. Reamy gave an elaborate dinner the evening of March 17th in honor of Dr. Wm. H. Baker, of Boston, Professor in the Harvard School of Medicine, to twenty physicians of the city. Those present were Drs. W. W. Dawson, W. W. Seeley, Wm. H. Taylor, A. W. Johnstone, Joseph Ransohoff, C. D. Palmer, E. S. McKee, Giles S. Mitchell, E. W. Mitchell, A. B. Isham, C. L. Bonnifield, J. M. Withrow, Jas. G. Hyndman, G. W. Ryan, F. Forcheimer, and A. B. Richardson. The dinner and evening were thoroughly enjoyed by the participants.

The Commencement of the Miami Medical Collège, held at the Odeon, April 1st, ushered twenty-seven more doctors upon the world. Words of wisdom were uttered by the Dean, Dr. Wm. H. Taylor, and the class of '91 made their exit amid the plaudits of the audience.

The Commencement exercises of the College of Pharmacy, March 19th, attracted a large audience. Twenty-four graduates took the degree of the college. The address on behalf of the Board of Trustees was delivered by Wm. Rendigs of the Cincinnati School Board. The degrees were conferred by Henry Wolde, Esq., and the Faculty address delivered by Julius Eichberg, M. D., Ph. G. The Faculty prize for best average in all branches was awarded to Miss Alice Braunsworth, of Muscatine, O. Faculty prize for best examination in all branches was received by R. W. Mitchell. The

various prizes were gold medals, except in one instance, where a set of books was given. The exercises concluded with a grand banquet and good time.

The Alumni meeting of the Ohio College was largely attended. Dr. H. M. Thompson, of Circleville, O., Class of 1841, delivered the opening address. Dr. Floyd S. Crego, of Buffalo, followed with an address on The Progress in Medicine, and the proceedings were closed with the class address by G. P. Johnston. Dr. J. J. Mullen, Class of 1844, was elected president, and five vice-presidents selected from different classes.

The Commencement exercises of the Cincinnati College of Medicine and Surgery were held at the Scottish Rite Cathedral, March 6th. The class numbered twenty-four. Dr. R. C. Stockton Reed, the Dean, read the annual report of the college for the year. Dr. Giles S. Mitchell delivered the Faculty address, and Dr. Louis M. Schiel, as valedictorian, delivered the address of the class.

Pulte Medical College, at its Commencement at the Scottish Rite Cathedral, March 9th, graduated a class of twenty-nine.

The Ohio College of Dental Surgery graduated a class of seventy-five, March 11th, one of the largest classes this institution has ever sent forth. Dr. H. A. Smith, Dean of the Faculty, conferred the degrees, Dr. Clancy delivered an address, and Prof. Cassidy gave the Faculty address.

The Mississippi Valley Association of Dental Surgeons met March 11th in Cincinnati. This Association is the oldest one of its kind among dentists in the United States. The session lasted three days, ending with a grand banquet. The programme contained a number of interesting papers, opening with the president's address by Dr. M. H. Fletcher, of Cincinnati, followed by papers from Dr. Eugene Talbot, of Chicago, an authority on abnormalities of the teeth, and others. The Question Box, voluntary essays, incidents of office practice, and exhibition of appliances were features of the meeting, as well as the carefully prepared and well read papers from various well-known members of the Association.

The Ohio Medical College held its seventy-



second Annual Commencement March 5th. The graduates numbered ninety four, and the prizes and medals were well distributed, showing the general standing of the class to be high. The *internés* for the coming year at the Cincinnati Hospital are Drs. H. F. Kattenhorn, E. F. Landy, and Jacob Wolf, all of Cincinnati; *internés* at the Good Samaritan Hospital, Drs. H. C. Buell, East Bloomfield, N. Y., Charles W. Newton, Marietta, Ohio, Clarence Schoolfield, Dayton, Ky. The Faculty prize for best final examination in all departments was awarded to Dr. H. F. Kattenhorn, Cincinnati. The valedictory address was delivered by Dr. Jas. T. Whittaker, who held the large audience spell-bound with his words of wit and wisdom, interesting alike to the class which he addressed and the assemblage who applauded as they listened. He deplored the lack of law to regulate the establishment of medical schools and teaching, which in this city represent every freak, fraud, and frenzy of which the human mind is capable. Then the hospitals, which have been multiplied until there is one for every race, for every creed, for every sex, for every age, and at present rates there will soon be one for every disease and every doctor. He mentioned, as founders of hospitals and medical schools, physicians, ministers of the gospel, fashionable ladies, men who have made fortunes by questionable means, as vending patent medicines, who

Strive for life-long evil to atone  
By building monuments in stone.

He severely condemned a charity hospital in this city, which begs from door to door so successfully that it sends annually \$60,000 to Europe. Yet its boast is, that no medical student is admitted to its wards, and no case may be presented to a class. None are so blind as not to see or so dull as not to know that a case presented before a class of three hundred students means three hundred times as much benefit to suffering humanity as a case secluded in such a charity hospital. He told the class that they might be born to greatness in the social scale, they might have it thrust upon them in politics, but they would have to achieve success in medicine, for there was no other way to reach it. He admonished them to work with a pur-

pose. Purpose, persistence, patience furnish the power of concentration, and the fruits of concentration were what the world calls the work of genius. He told them they were fortunate in beginning their careers in the dawn of a new day. It is impossible not to recognize that the practice of medicine will soon be conducted upon entirely new principles. The recent discoveries with which the world yet rings disclose principles which are more directly to address the cause of disease. In the most hopeless case which may confront you, inspire your patient with hope.

Strike him not dead with a denial,

But leave some glimmering of a doubtful hope.

He told the story of the siege of Lucknow, when the besieged garrison watched, waited, and prayed in vain for the sound of the bugles of the rescuing troops. The hush of danger was over all, death by cruel slaughter seemed at hand, when hark! the sound of the slogan in the far distance inspired hope anew in despairing hearts. Gentlemen, in the darkest hour listen for the slogan. God be with you. Good-bye.

E. S. M'KEE, M. D.

IMMUNITY OF ANIMALS FROM DIPHTHERIA.—In the *Deutsche Medicinische Wochenschrift*, 1890, No. 50, Behring contributes a second article on immunity from diphtheria induced in animals, corroborating the experiments made by himself and Kitasato, an account of which has already been published. Behring's second series of experiments were supplemented by others on mice and rats, which enjoy a natural immunity from the disease. He states that he can produce this insusceptibility in five different ways. The first method is that introduced by C. Fraenkel (*Berliner Klinische Wochenschrift*, 1890, No. 49), in which the animals are inoculated with pure cultures which have been sterilized by heat. In the second process the animals are treated with injections which have been submitted to the action of the trichloride of iodine. Two injections are given, the first containing the chloride in the proportion of 1 in 500, and the second 1 in 5,500. The third method consists in the injection of from 10 ccm. to 15 ccm. of the transudation which is often found in the pleural cavities of animals suffering from diph-

theria, this fluid having been proved to contain no bacilli. Many guinea-pigs, however, treated in this manner died with toxic symptoms, but those which survived were shown to be proof against further infection. Fourthly, the animals can be invested with an immunity by first infecting them with the disease, and then as speedily as possible (within six hours at the latest) staying the action of the poison by therapeutical means. The most successful treatment is by the chloride of gold and sodium, carbolic acid, and more especially by the trichloride of iodine. Previous treatment with the last-mentioned drug is not sufficient to prevent the animals becoming affected with diphtheria. Lastly, the immunity may be conferred by means which have no connection with the chemical products of the bacilli—namely, by treating the animals previously to inoculation with peroxide of hydrogen. It is singular that the use of this compound is of no value after the animals have developed the disease; on the other hand, a fatal result seems to follow more speedily when the drug is employed, and if it be mixed with the culture of the bacilli the virulence of the injection of such a culture seems to be increased. All the animals which enjoy an immunity from diphtheria, either naturally or artificially produced, also resist the action of the poisonous products of the bacilli, obtained either from cultures or from infected animals. That the acquired resistance to the action of the diphtheritic poison does not depend upon an accumulative tolerance is shown by the fact that mice and rats are naturally free from the disease, and also that Behring never succeeded in conferring an immunity by gradually increasing the strength of the injections. He considers that, as in the case of tetanus, the cause of the resistance is a special property of the living cells of the blood to destroy the diphtheritic poison. This theory is supported by the fact that the blood of rats which have been injected with the poison is not capable of conveying the disease, while that of other animals which are susceptible to the disease and which have been inoculated is capable of so doing; and also that the blood of the guinea-pigs which have been rendered proof against diphtheria possesses the property of be-

ing able to render the poison harmless. On this latter point Behring promises more information.—*London Lancet*.

**DUST AND TUBERCLE BACILLI.**—The question of the di-semination of tuberculosis is so interesting and important that we may call attention to an observation in this direction by Dr. M. T. Schnirer, of Vienna, recorded in the *Weiner Medizinische Presse*, January 4, 1891. One day in 1888, on rinsing the dust from some grapes, bought on a warm day late in the summer, he found the water afterward quite dirty. Struck by the thought of the large number of phthical patients who eject their sputa upon the streets, he injected ten cubic centimeters of this water into the abdominal cavity of each of three guinea-pigs. One of the animals died in two days of peritonitis. The other two died in forty-five and fifty-eight days respectively. Examination of the bodies disclosed exquisite tuberculosis, originating at the site of inoculation, and partly caseous nodules in the peritoneum, in the liver, in the spleen, with but meager deposits in the lungs. Tubercle bacilli were found in the nodules. Dr. Schnirer concludes that the conveyance was by means of the dust, as the water used was the pure spring water of Vienna, and the glass receptacle containing the water, the doctor's hands, and the syringe with which the injection was made, had been previously sterilized. He assumes, though without direct evidence, that the vender from whom the fruit was obtained was healthy.

The point Dr. Schnirer makes is, that tubercle bacilli may be in the dust of public streets, and may be attached to fruit or other articles exposed for sale and afterward used for food.

This fear seems to be exaggerated and contrary to the inferences deducible from Cornet's investigations; for Cornet failed to find bacilli in street dust. Still, the observation of Schnirer is an interesting one, and its true significance may be estimated when taken in connection with facts continually accumulating. The experience of Schnirer may be open to inferences very different from those which he draws; but in any case it is interesting to record and worth remembering in studying the important subject of tuberculosis.—*Med. and Surg. Reporter*.



**ANTI-VACCINATION ARGUMENTS.**—On last Tuesday, at the Woolwich Police Court, a woman appeared in response to a summons relating to the neglect of vaccination of an infant. She explained that her husband objected to vaccination, and the grounds of his objections were stated by the vaccination officer. The argument of the husband was that "it is well known that bulls go mad every seven years, and that the cows make them mad;" and further that "the same cows are used for vaccinating the children, and the children go mad." He says, observed the vaccination officer, that "the madhouses are full of vaccinated children." The conclusion of this man, that the insanity of these children is due to vaccination, is not different from that of other anti-vaccinationists, that every misfortune which follows vaccination must be due to it. The well-known parliamentary return enumerating the diseases to which an increased number of deaths have been attributed since vaccination was made obligatory is based on the same sort of reasoning. "It is of no use," said the vaccination officer at Woolwich, "arguing with a man like that." Is it, we may ask, any use reasoning with anti-vaccinationists generally? Every epidemic, every smallpox hospital gives evidence which ought to convince the most skeptical as to the value of vaccination, but this evidence has no value with some anti-vaccinationists. Nevertheless, there are many who are open to conviction, and it behooves every medical man who values the lives of his patients to do his best to make the actual facts as to vaccination known to them, that as far as possible the disastrous effects of smallpox may be escaped.—*London Lancet*.

**PROGRESS OF CREMATION IN ENGLAND.**—The cremation Society of England has now existed seventeen years. The crematorium and the buildings at Woking have been thoroughly tested, and are in every respect efficient and commodious. The appearance they present to the eye—a combination of early Gothic architecture, extremely well executed, surrounded by beautiful trees and shrubs—is, especially in summer time, picturesque and pleasing. During the past year no fewer than

fifty-four bodies have been cremated. Among them may be named the late James Nasmyth, the distinguished engineer, a generous supporter of the Society; the well-known Rev. J. MacNaught, of Liverpool, and the late Baron Huddleston, on which last occasion the service, performed in the Society's chapel by the Rector of Ascot, was attended by a distinguished assembly of relatives and friends. The Society is earnestly asking for support to complete their plan of erecting cloisters for the reception of cinerary urns. For this, and also for the purpose of promoting the interest of cremation, by publishing, lecturing, etc., the Council of the Society urgently appeals to the public for donations and annual subscriptions. It may be as well to add that a payment of ten guineas constitutes the donor a member for life, and entitles him to be cremated without charge after death. Since the beginning of the present year 1891, the remains of Kinglake, the historian, and of his Grace the Duke of Bedford, K. G., have been cremated.—*British Medical Journal*.

**VACCINATION AND PROFESSIONAL COURTESY.**—Dr. Edmund Robinson, the public vaccinator for Birmingham, sends us details of two cases which involve grave want of professional courtesy. A year ago he vaccinated a child, and not long afterward he accidentally heard that an inquest was to be held on the child, because its death had been certified by another medical practitioner as due to syphilis from vaccination. The result was a verdict showing that the certificate had no foundation. Again, Dr. Robinson this month finds a report in a local paper as to a child he vaccinated some time back, and which, having been under the care of another medical practitioner, is alleged to have died of erysipelas associated with vaccination. The cause of death may, for all we know, be correct in this instance, and it is not this to which we desire to draw attention. But we feel very strongly that when a medical practitioner is called in to attend a child in connection with its vaccination, which was performed by another practitioner, his obvious duty is to place himself at once in communication with his *confrère* who performed the opera-

tion; and it will be clear that no breach of ordinary professional courtesy such as is here indicated can possibly be justified because the case was one of vaccination instead of any other operation, or because the medical practitioner who performed it happened to hold a public office. It may be some satisfaction to Dr. Robinson to know that all such cases as he refers to are being inquired into by the Medical Department of the Local Government Board.—*Lancet*.

**THE INFLUENCE OF TOBACCO ON THE PROCESS OF DIGESTION.**—Ydan-Pouchkine made a series of careful experiments on seven persons in good health, but who were not accustomed to tobacco. His results were as follows: Tobacco increases the quantity of the gastric juice, but diminishes its acidity. The amount of free hydrochloric acid is decreased, and consequently the digestive power of the gastric juice. Its peptonizing power is also diminished. These effects last for a certain length of time. On the other hand the movements of the stomach and its power of absorbing are increased. Tobacco has no effect on the acidity of the urine.—*Boston Medical and Surgical Journal*.

**THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION** will hold its seventeenth annual session at St. Louis, Wednesday, Thursday, and Friday, October 14, 15, and 16, 1891. A large attendance, a valuable programme, and a good time are expected. The members of the medical profession are respectfully invited to attend.

E. S. M'KEE, M. D.,  
Secretary.

**THE fortieth annual session of the Iowa State Medical Society**, will be held at Waterloo, Iowa, Wednesday, Thursday, and Friday, April 15, 16, and 17, 1891. Officers: W. D. Middleton, Davenport, President; J. D. McCleary, Indianola, First Vice-President; J. L. Whitley, Osage, Second Vice-President; C. F. Darnall, West Union, Secretary; C. S. Chase, Waterloo, Assistant Secretary; G. R. Skinner, Cedar Rapids, Treasurer.

## SPECIAL NOTICES.

**ECHOES FROM THE BERLIN INTERNATIONAL MEDICAL CONGRESS.**—At the Tenth International Medical Congress, held in Berlin last year, the United States was liberally represented, and it would appear that every one of the delegates visited the headquarters of Johann Hoff's malt extract, for the visitors were requested to register their names, and the list, in *fac-simile*, has been printed in pamphlet by Messrs. Eisner & Mendelson Co., the sole agents in the United States, in which they say:

Nearly all of these eminent physicians had used Johann Hoff's extract of malt in their practice for years, but many of them had been led to believe at various times that the name was a myth, Johann Hoff a nonentity, and the extract itself was compounded in America, or that the firm of Johann Hoff was only in existence since 1880, etc.

Now the Eisner & Mendelson Co. take the ground that these many signatures of representative physicians are a "silent but eloquent verification of the existence of the establishment for over thirty years, the entity of the inventor, and the genuineness of the goods."

The reason that the Eisner & Mendelson Co. take a special pride and pleasure in the signatures of these physicians is that they regard it as a refutation of the claims that have been made in this country for some years that Johann Hoff was a myth; that there was no firm of Johann Hoff prior to 1880; that Hoff's malt extract was made in this country and not in Europe; and that the goods sold as Johann Hoff's malt extract were fraudulent. The physicians came to Berlin and saw with their own eyes the breweries of Johann Hoff's malt extract; tasted with their own lips the invigorating products of the laboratories; heard from many witnesses that Johann Hoff's malt extract was made in that place thirty years ago, and received abundant proof that the Eisner & Mendelson Co. were the sole agents in the United States for Johann Hoff's malt extract.—*From the Oil, Paint, and Drug Reporter*.

GONORRHEA in any stage, try internally:

R Potassii Bromidi.....4 drachms;  
Sodii Bicarbonatis.....1 oz. ;  
Tinct. Cannabis Indicæ.....4 drachms;  
Spts. Eth. Nitrosi.....3 oz. ;  
Aque ad.....6 oz.

M. ft. sol. Sig: One drachm three times per day.

And as an injection:

R Extract Pinus Canadensis (white)..2 oz. ;  
Tinct. Opii.....1½ oz. ;  
Glycerin.....1 oz. ;  
Aque Rosæ ad.....6 oz.

M. Sig: Inject every three hours.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain, however. Robinson's Wine Coca (see page —) we believe to be a uniformly active article, it being prepared from assayed leaves the percentage of Cocaine being always determined by careful assay.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.  
[NEW SERIES.]

LOUISVILLE, KY., APRIL 11, 1891.

No. 8.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

## Original Articles.

### NOTES FROM VARIOUS SOURCES, MADE UPON A CASE IN POINT, FOR USE ON "THE WITNESS STAND."

BY U. H. HON, M. D.

Age commences when the vital energies of the different organs begin to decay. The period at which this change commences varies very much in different persons, according to their constitutions, employments, and habits during the earlier epochs of existence. In many it may be so gradual as to be imperceptible; in others more obvious, and in some it is induced rapidly and remarkably by mental anxieties and bodily disease.

The last period of life has been subdivided into incipient old age, 60 to 70 years; confirmed old age, 70 to 85 years; decrepitude, 85 years upward. In the latter the senses are failing as an avenue of knowledge, the eye becomes dim, and the ear is only arrested by acute noises; there are physical changes of a downward nature, which end in their destruction.

Genius is an inborn bent of mind, a natural talent, and rarely wears out.

The convolutions are scarcely developed until after the first year of life. The cerebrum diminishes in size in old age; it may diminish in certain parts in preference to others. The cerebellum does not diminish in size. The cerebellum controls motion. The more the mind is developed, the more distinct are the convolutions of the brain.

In old age the convolutions approximate the

condition in infancy. Deficiency in the circulation is accompanied with feeble manifestations of the mind, and in old age there is always deficiency in the circulation. In old age there is a constant accumulation of dead matter, which changes the chemical qualities of the blood and poisons the system; there is, first mental depression, then unconsciousness, and finally death.

The mental tone depends upon the purifying organs, the lungs, liver, skin, stomach, intestines, kidneys, etc. The mind is completely at the mercy of the bodily condition, and can not be maintained without a proper supply of pure blood. There is no example of two agents so closely united as mind and body, without some mutual interference or adaptation. The entire bodily system, though in varying degrees, is in intimate alliance with mental functions. This connection is not occasional or partial, but thorough-going and complete.

It has been noted in all countries and ages, that the feelings possess a natural language or expression. So constant are the appearances characterizing the different classes of emotions that we regard them as a part of the emotions themselves. The smile of joy, the puckered features in pain, the stare of astonishment, the quivering of fear, the tones and glance of tenderness, the frown of anger, are united in seemingly inseparable association with the states of feeling that they indicate. Looking at a child's cut finger, we can divine its feelings; if we see a smiling countenance, we know something of the mental tone of the individual. In this way we can partially solve some of the problems connected with the action of the brain, which we could never do by confining ourselves to a study of nervous substance, however complete.

The nervous system communicates with the

outworks, the organs of sense and motion, whose operations we can study during life as well as examine their intimate structure; we can experimentally vary all the circumstances of their operation; we can find how they act upon the brain, and how the brain reacts upon them. Using all this knowledge as a key, we may possibly unlock the secrets of the anatomical structure; we may compel the cells and fibers to disclose their meaning and purpose.

If a feeling arises without its appropriate accompaniment or sign, we account for the failure either by voluntary suppression or by the faintness of the excitement, there being a certain degree or intensity requisite to affect the bodily organs. Our emotions are so closely connected with their expression that they hardly exist if the body remains passive. If we try while the features are fixed in the expression of one passion to call up in the mind a different one, we shall find it impossible to do so. On this uniformity of connection between feelings and their bodily expression depends our knowledge of each other's mind and character. When any one is pleased, or pained, or loving, or angry, unless there is purposed concealment, we are aware of the fact and can even estimate in any given case the degree of feeling.

Bodily changes affect mental states, and *vice versa*. Our feelings and moods depend upon hunger, repletion, the state of the stomach, fatigue and rest, pure and impure air, cold and warmth, stimulants and drugs, bodily injuries, disease, sleep, and advancing years. These influences extend even to the highest emotions of the mind, love, anger, esthetic feeling, and moral sensibility. Bodily affliction is often the cause of a total change in the moral nature. Health keeps an atheist in the dark. The bodily routine of our daily life is the counterpart of the mental routine. A healthy man awakens in the morning with a flush of spirits and energy. His first meal confirms and reinforces the state. The mental powers and susceptibilities are then at their maximum. As the nutrition is used up in the system they gradually fade, but may be renewed once and again by refreshment and brief remission from

toil. Toward the end of the day lassitude sets in and fades into the deep unconsciousness of healthy sleep. The memory rises and falls with the bodily condition; being vigorous in our fresh moments and feeble when we are fatigued or exhausted. Exhaustion, with inanition and fatigue, may cause the utter failure of memory, so that a person can not recollect a single word. The power may come back by taking food and wine.

Old age notoriously impairs the memory in ninety-nine men out of a hundred. Under bodily weakness, abstinence, fatigue, disease, and old age, individuals occasionally manifest high mental energy, elation, and great intellectual power. The lives of martyrs and heroes are replete with such exceptional vigor. Sudden outbursts of emotion derange the bodily functions. Fear paralyzes the digestion. Great mental depression enfeebles all the organs. On the other hand, happy outward circumstances are favorable to health and longevity.

The brain is pre-eminently the mental organ, but others co-operate, more especially the senses, the muscles, and the great viscera.

Disease is the opposite of ease. The deportment of our fellow beings sometimes strongly arrests our attention. To the painter, the sculptor, and the poet, every feeling has its appropriate manifestation. Not merely are the grosser forms of feeling thus linked with material adjuncts; in the artist's view, the loftiest, the noblest, the holiest of the human emotions have their marked and inseparable attitude and deportment. These are patent facts which are apparent, even to the vulgar, and are intently studied by the painter, the sculptor, and the poet.

The basis of intellect is memory.

The great characteristics of reason are judgment and reflection.

The rate of passage of the nerve-force has been shown to be about ninety feet per second.

The state of the mind is dictated to by the state of the brain. As an example, note the mental symptoms of typhus fever, summed up in the phrase "febrile oppression." There is a great inaptitude for exertion of the power of thought or motion. The expression of the face is dull and heavy, absent, puzzled; the



patient has the appearance of a person made stupid by drink, etc.; in short, the mind is completely at the mercy of the bodily condition. There is no trace of a separate, independent, self-supporting spiritual agent, rising above all the fluctuations of the corporeal frame.

The subject of "the connection of mind and body" is not mature, but enough is known regarding it to gratify curiosity and to impart useful lessons.

Mind is now generally admitted to have a three-fold aspect, three different functions, expressed by feeling (including emotion), will or volition, and thought or intellect. These are a trinity in unity.

Change of impression is necessary to our being conscious. An unvarying action on any of our senses has, when long continued, the same effect as no action at all.

We are not conscious of the pressure of the atmosphere. The feeling of warmth is not an absolute, independent, or self-sustaining condition of mind, but the result of a transition from cold.

There are forms of degeneration of the heart, the lungs, the kidneys, and other parts, that do not interfere with the usual functions; their evil consists in preparing the way for a sudden break-down. The epithets lively, animated, gay, cheerful, hilarious, are expressions of unusual activity. The epithets sad, miserable, woe-begone, depressed, sorrowful, dejected, crest-fallen, suggest languor, prostration, inactivity.

When new currents are commenced, or when existing currents are increased or abated, we become mentally alive, and if we are already conscious a change comes over our consciousness. This is discrimination, the very beginning of our intellectual life. If we are insensible to the changes from hot to cold, we are disqualified from knowing the phenomenon of heat; to be unaffected by changes of light is another way of expressing blindness. Acquisition has a limit determined by the amount of the nervous substance, that is, the size of the brain.

There are varieties of expression which indicate the growth, normal state, and decline of

mental vigor. There is a cheerful, open countenance of the man in the enjoyment of mental and bodily health and ease; there is a vacant stare of the thoughtless, a melancholy visage of the disappointed, a dreamy look of the absent, and a wild expression of the maniac.

By justly estimating the evidence written upon the forehead, the expressive language spoken by the eyes, the mirror of the mind, we can form a pretty correct idea of the workings of the mind.

The term lunatic was adopted when it was erroneously supposed that the moon influenced mental disorders. Insanity includes all varieties of unsound mind. Mania, disorder of the intellect impelling to acts of fury. Mania directed to one object is monomania. Dementia is synonymous with insanity, it is a defect, general or partial inability to associate and compare ideas and arrange thoughts. Dementia is imbecility, the result of acute diseases, shock, injury to head, or old age. Idiocy and imbecility are allied; in both there is original deficiency of intellect. The subject of idiocy is born totally devoid of understanding, and has no lucid intervals. The imbecile, though not absolutely insane, is yet unable to guard against importunity or undue influence, there is more or less arrest of brain development. Idiots are wholly irresponsible.

No one is of perfectly sound mind but the deity.

Cretin, *cagot*, a name given to deformed and miserable beings met with in the Pyrenees and upper Gascony, in France;

Fatuity, foolish, demented;

Kleptomania, propensity to steal;

Dipsomania, desire for liquors;

Pyromania, desire to destroy by fire;

Nymphomania, a "fury" which the name explains;

Satyriasis, of the same nature in males;

Illusion, sensations produced by the false perceptions of objects;

Hallucination, to imagine some one speaking when all is quiet.

When a false sensation is detected and not acted upon there is no insanity.

The bodily susceptibility of the insane is just as great, but they want warning power.

An eccentric man may be convinced of an error, but he defies absurdities. A monomaniac can not be convinced of an error, the controlling power of will is lost.

PAOLI, IND.

## LAW AND MEDICINE.

BY HENRY A. RILEY, ESQ.

THE LEGAL STANDING OF BACILLI.—A very interesting case was tried some time since in the western part of New York, and has recently been reviewed in the Court of Appeals. A person died from a malignant pustule, and, as he held an accident policy, suit was brought under the theory that the cause of death was an accident and not a disease, which would be outside the policy. The physicians called by the plaintiff endeavored to show that the effect of the poison on the body was a "pathological condition" and not properly a disease. One defined it as "a pathological condition and succumbing of the body to the infliction of this particular poison," and another said he considered it as a "pathological condition following this particular inroad of this particular kind of bacilli."

The Court of Appeals considered this reasoning very technical and farfetched, and decided that death resulting from a malignant pustule was really a death from disease, and that consequently there could be no recovery under an accident policy of insurance. The opinion is interesting in its entirety, but is too long to be given in full. The following is a portion:

"In answer to the question 'How rare is malignant pustule?' same witness for the plaintiff answered: 'In the eastern part of this country it is pretty rare. There have been some epidemics reported in America. In the eastern part of Massachusetts, I think about twenty years ago, there were quite a number of cases among the hair workers, people that take the hair that comes from abroad and make mattresses of it.' The witness thus designates the difficulty as an 'epidemic,' which word is so frequently used in connection with 'disease' as almost to be synonymous therewith. It was undoubtedly so used in this instance by the witness, who thus describes malignant pustule

as a 'disease' when referring to its frequency in Massachusetts some years ago. The word 'epidemic' would scarcely be used to express a frequent occurrence of accidents. The witness also said he has seen it termed in one standard authority as an 'acute, infectious disease.'

"He said that the special poison of the disease has been found to be a particular kind of bacteria, 'bacillus anthrax.' The following question was put to the witness: 'Is it not so, that anthrax is an acute, infectious malady, which breaks out commonly in an epizootic or enzootic manner, and is not infrequently sporadic in herbivorous animals and swine, and is transmissible to a great number of other animals as well as to mankind?' The answer of the witness, after some fencing, was, 'Yes, I think that is correct.' Malignant pustule differs, according to this same witness, from diphtheria, smallpox or scarlet fever in the single fact that this is a particular poisonous animal matter, and it has one particular germ from which it originates, as smallpox has another, and hydrophobia another, and the cause of the difficulty in each case is some form of bacteria transmissible to mankind.

"It can be contracted through eating the flesh of animals subject to the disease. The bacillus is very small, so small that it may enter in the pores of the skin, and an abrasion of the skin is not necessary, but might quicken the result. The forming of the pustule upon the skin is the product of the poison. Another witness for the plaintiff, who was a physician, said that he understood malignant pustule to be a development of the particular bacilli in the system radiating from the point of contact. He added that the contagion might be internal as well as external, taken through the mouth or through the nose, and it is generally considered an acute, infectious disease."

AIR GARDENS IN NEW YORK.—There is a project in New York to roof over the reservoir at Bryant Park in Forty-second Street and make a grand air garden for the people. The World newspaper is the principal backer of the project, which has met with strenuous opposition on the score of the public health. The Academy of Medicine has adopted resolutions protesting against it, and the Board of Health



is also said to oppose it on the ground that the placing of an air-tight cover over a reservoir of water will cause it to become unhealthy. On the other hand there is produced considerable expert testimony showing that reservoirs of water in Europe frequently have covers over them, and the plan is said to be much favored. The matter should be judged dispassionately, and if another breathing-place for the people can be found without harming the public health it would certainly seem an advantage.

**THE RIGHTS OF THE INSANE.**—The rights of the insane are frequently referred to in the public press, and are very often the subject of bitter litigation in the courts. Not long since there was a curious case in New York of a wealthy man who says that he first knew of the issuing of papers for his commitment to an insane asylum by seeing an account of the proceedings in the daily papers. He says that he never was examined by physicians as to his sanity, and did not know one of the physicians who certified to his insanity by sight even. The judge who issued the commitment promptly vacated it when these facts were brought before him. Another person, who considers herself aggrieved by the action of the managers of the Utica Insane Asylum, intends to bring an action for \$25,000 damages, and to have court decide whether it is right that letters directed to her should not be delivered to her.

**MALPRACTICE IN NEW JERSEY.**—The Union County Court in New Jersey has recently had a malpractice case before it for several days, in which the damages claimed were \$10,000, while the jury only awarded \$250. The plaintiff was a blacksmith and the defendant a well-known physician of Plainfield, N. J.

The blacksmith was shoeing a horse, when the animal became restless and tossed the workman in the air and the fall dislocated his thigh. The physician, it was alleged, did not discover the serious nature of the injury, but confined his treatment to rubbing the outside of the leg. The leg became contracted some two and a half inches; and when other physicians were called in they succeeded in getting the hip in shape, but the leg was permanently shortened about half an inch.

There was a great deal of expert evidence

introduced, some of which must have been favorable to the defendant, for the verdict was a small one, if the treatment was as injurious as was claimed by the plaintiff.

The verdict was probably a compromise one, as the jury was out eight hours before a decision was arrived at.

NEW YORK.

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## Societies.

### THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, February 10, 1891, Dr. T. P. Satterwhite, President, in the chair.

Dr. W. H. Wathen: On the third instant Mrs. B., forty-two years old, from the interior of Indiana, came to St. Joseph's Infirmary to consult me about an abdominal enlargement. She was very anemic and emaciated to the last degree, with a pulse of 140 per minute. The tumor was larger than a man's head. She had been suffering for over two years, and had noticed that her abdomen was enlarging. Since September she had been tapped every two weeks, drawing off each time from two to four quarts of a clear liquid, and after each tapping the depression or shock was more marked. Finally, when the tumor refilled, she would suffer severe pain and could not sleep. She would persistently vomit a yellowish-green matter after being tapped, and her pulse would become rapid and feeble. When I saw her she could not lie in bed, and had not slept or eaten any thing for three days. Her only hope of recovery was in having a laparotomy done and the tumor removed. She was operated on at 11 o'clock A. M., on the fourth. The tumor was adherent to the abdominal wall, and especially so at the point where the trocar had been regularly introduced. There was leakage into the abdomen of more than a quart. The tumor was firmly adherent, as you will see from this specimen, at many points to the intestines. The cyst was quite rotten and had a broad base, requiring four or five ligatures. She lost but little blood. The cavity was flooded, and the wound closed with a small drainage-tube in the lower angle. Her pulse after the operation was 90 per minute. Ether was used,

and the operation was completed in thirty minutes. She did well for six hours, when her pulse became more rapid; late in the evening it was 115 per minute, and at 8 o'clock next morning was 160, with a temperature of 100°. The abdomen was not distended, but frequent vomiting without apparent effort continued until she died at 4 o'clock P. M.

The tumor was a broad ligament cyst and showed well marked papilloma. Dr. Marvin's microscopical examination of the specimen sustained my diagnosis of malignancy. I had told her husband before the operation that the tumor might be malignant and possibly could not be removed.

I do not think it really necessary to use the microscope to confirm the diagnosis in papillomatous broad ligament cysts, for they are always malignant, though the characteristic cells may not be well marked. I wish to emphasize the evil in tapping such cases, and the increased mortality caused by delay in removing abdominal cysts. This woman's life could have been saved had she been operated on before she had been tapped.

I am always pleased to report my bad results or deaths in laparotomy, for by a careful study of such cases we finally learn to do better work by learning to avoid or prevent complications or accidents that may cause the death of our patients. Reported recoveries in simple cases of laparotomy do not always indicate superior or unusual skill in the operator, and such reports are of but little value to the medical profession, and may indirectly result in the death of many women by influencing ignorant men with no facilities for such work to attempt it because of its apparent simplicity. I have reported but a small minority of my successful cases, but unfortunately many operators report such cases before the final results are known, but do not report so promptly those cases that have died.

Dr. J. A. Ouchterlony: It certainly is a very interesting report for a great many reasons. Never having removed an ovarian tumor in my life, and having no desire to do so, it is interesting to me as a practical physician. (1) I would like to know what was the condition of this woman's kidneys. The history nat-

urally suggests the possibility of renal complication. The character of the fluid vomited is such as everybody vomits who has persistent vomiting with an empty stomach. If vomiting occurs after a full meal the contents of the stomach are first thrown off. If it continues the fluid is more or less mixed with mucous. Then, as a reverse action continues, the patient commences to vomit bile. (2) I would like to know what was the cause of death. Whether it was shock or whether it was hemorrhage from the growth which, I presume, was deposited on the peritoneal surface. (3) What was the particular form of malignant growth which Dr. Marvin found?

Dr. W. H. Wathen: I did not make an examination of the urine, but would not be surprised if there was some kidney complication. As to cause of death, you can call it shock, or exhaustion, or whatever you please. The woman might have died from the shock of tapping, but death from what would usually be called exhaustion. There was no coma. There was no hemorrhage whatever, before or after. Dr. Marvin did not make a detailed report as to the nature of the growth, only stated that it was one of malignant character.

Dr. L. S. McMurtry: I wish to exhibit a glass female catheter, the introduction of which would greatly facilitate the management of cases requiring the use of such an instrument. We all know that by the repeated use of the ordinary rubber and metal catheters, unless great care is taken, infection of the bladder and cystitis are sure to result. This instrument, being non-absorbable and readily cleansed, can be easily kept in an antiseptic solution and thereby prevent any such complication.

Dr. W. H. Wathen: I have a catheter, presented to me by Dr. Kelly, of Johns Hopkins University, on the same order, which I rather prefer to this. Certainly these are admirable things, as Dr. McMurtry has said, and will often prevent the inflammation that results from the use of the metal or gum catheter. This is perfectly aseptic and is very smooth.

Mr. J. A. Flexner (by invitation): I wish to call the attention of the gentlemen present to a comparatively new drug, the sulphate of eseridine, from the laboratory of Boehringer,



in Germany. This drug has been somewhat extensively used on the lower animals by the hypodermic method as a purgative. A case has recently come under my notice wherein this preparation, were it adaptable to a human being, would have been of inestimable value. The patient was under the care of Dr. McMurtry and had been the subject of a laparotomy. She suffered from nausea, and when the third day came, and it was necessary to administer a purgative, the greatest difficulty was met in having any thing retained by the stomach.

The idea then of a purgative that could be administered hypodermically occurred to me, and it was broached to Dr. McMurtry, who received it rather enthusiastically, and in conversation with other practitioners I have found that such an addition to the materia medica would be most welcome. I speak of this drug more for the purpose of obtaining an expression of opinion on this point than for any other purpose, as I am not aware that it is capable of being used upon a human being with any success, though arrangements are made to have it tried in the City Hospital here.

Dr. L. S. McMurtry: Such an agent as Mr. Flexner has presented, if safe and effective, will fill a very important place in the therapeutics of pelvic and abdominal surgery. It has been demonstrated that in incipient or established peritonitis active catharsis is an effective method of draining the peritoneum. When such an effect is most needed the stomach is intolerant. If Mr. Flexner's researches provide us with such an agent, to be administered hypodermically, it will be a great addition to our resources.

Dr. J. A. Ouchterlony: It seems to me very desirable that we should have something as a purgative which corresponds to apomorphia as an emetic. The admirable effect of apomorphia was effectively described by Dr. Cheatham at the last meeting, where sulphate of zinc was a whole hour without effect, and when one sixth of a grain of apomorphia was injected it acted in two minutes. We find cases where we can not administer croton oil because the patient's stomach will not stand it, or any of the powerful cathartics, and yet it is important that we

have rapid catharsis, and it seems to me that this just fills the bill.

Dr. W. H. Wathen: If a medicine that can be used hypodermically and produce rapid evacuations of the bowels, without depressing the system too much, can be found, it will be invaluable in the line of work in which I am engaged. Many lives can be saved that might otherwise be lost. Oftentimes in these cases of septic trouble an effective cathartic would be invaluable.

Dr. P. Guntermann: At our last meeting I made a verbal report of a case of facial erysipelas. As I then feared, the patient died that very night. To make this report brief, it seems best to repeat what was then said:

Jane D., a woman of about sixty years of age and well preserved, was attacked on the 6th of January with facial erysipelas, beginning about the nose with a suppurating sebaceous follicle. The disease soon extended over the left side to the ear, across the nose over the right side and involving the ear, also over the forehead to the margin of the hairy scalp. The chin and lower lip remained free. Patient had little appetite, a great deal of gastric irritation, and occasional vomiting. Her pulse was always good, never higher than 80 per minute. Temperature ranged from 99° to 101.5°. The secretions were normal, and no fears for her life were entertained. On the 12th of January Dr. Satterwhite saw patient with me, found the patient as described, agreed as to treatment, and gave a favorable prognosis. On the 13th inst. patient died comatose.

*Treatment.* Local application of carbolated vaseline, five per cent, and bichloride of mercury 1 in 500, covered by a mask of absorbent cotton. Internally, mur. tr. of iron and mur. of quinine in medium and oft-repeated doses. Also a few doses of bismuth subcarb. gr. 10, and morph. gr.  $\frac{1}{8}$ , to relieve the retching from the stomach and general restiveness. The morphine seemed to have a very unpleasant effect. The woman died comatose, but had taken no morphine for two or three days. The urine was examined twice, but nothing abnormal found; the bowels acted normally and responded promptly to small doses of sulph. magnesia. She died evidently from effusion.

This patient is one of seventeen that I have seen since December 26, 1890, to January 13, 1891. All seventeen had facial erysipelas. In all except two the trouble began with suppurating sebaceous glands on or near about the nose; three were over fifty years old, ten were middle-aged strong people, and four were young, from twelve years to adolescence; four were males, and thirteen of the other sex.

All patients were treated in a manner after the fashion indicated above; all made good and speedy recoveries except Jane D., who died. The average duration of confinement and actual treatment was about ten days.

One of the patients referred to me by Dr. T. P. Satterwhite, a young lady, showed some peculiarities which, perhaps, deserve some special notice. All my patients had very little fever, except this young lady.

On my first visit she had a temperature of 105.5°. The next morning 107°, with frequent chills, alternating with hot flashes, with mind somewhat confused and slight delirium. The temperature kept high for some three or four days, when finally it became lower and gradually reached the normal standard. This patient did not take the iron since it nauseated her, but she took five grains of mur. of quinine, equal to about eight of the sulphate, every two hours, and five grains of phenacetine as often as needed, that is, as often as the skin became harsh and dry and patient complained of being restless, tired, and having nervous headache. I am satisfied that phenacetine had much to do in relieving all the unfavorable symptoms. It also relieved a headache, for which Dr. Satterwhite had prescribed ten-grain doses of antikamnia, and of which (antikamnia) eighty grains had been taken within ten hours without any relief whatever.

Two of the patients, both strong men, had suppurative folliculitis. The erysipelatous infection attacked the original sore first and quickly spread over the whole face. Both men were given large and frequent doses of iron and quinine. In these the local treatment was changed. The ears were thoroughly syringed with a wash of bismuth and liquid plumbi subacet., one dram of the latter to one part of the former, then a one-per-cent solution of

pyoktannin was dropped in. The result was marvelous. Pus ceased to flow at once, and wherever the solution had touched the erysipelatous surface a marked change for the better was observed. This led me to apply the solution over the whole diseased surface and about an inch beyond over the healthy skin. The result was most unexpected, change for the better almost spontaneous. (Hereafter pyoktannin will have first trial as a local application in erysipelas.) The solution used was a one per cent in water three parts and glycerine one part.

My patients were all vigorously treated, since I take erysipelas to be the result of micro-organisms invading the whole system. I am fully persuaded that a conservative or expectant plan of treatment would have proven disastrous to some of my patients.

Whatever the cause of this outbreak of erysipelas in a comparatively circumscribed neighborhood, and likely a good many more have been observed by other physicians, I have been unable to find.

But for Dr. Cheatham's little pamphlet I would not have employed pyoktannin; and since it has proven of great benefit as a local application in erysipelas, I would ask the Fellows of this Society to give pyoktannin a trial the first opportunity that offers.

*The Ecboic and Exanthematous Effects of Quinine.* T. P. Satterwhite, M. D.: The question is asked not unfrequently, is quinine an ecboic? Works on obstetrics say nothing to indicate that it is. Writers on materia medica and therapeutics, when they say any thing about it, very positively state that quinine has no power to originate uterine contractions in the pregnant woman. A drug that is in such common use ought to be fully understood in this particular, and I thought it would not be uninteresting to the Society to report the various opinions upon this subject.

In looking over the journals, the majority of the articles written by medical men claiming that quinine is an ecboic, we generally find that the patients who had the drug given to them when in a pregnant state were laboring under some malarial trouble or other disease. Many medical men living in malarial districts, who have freely administered quinine for years



to pregnant women, state that they have never seen a case of abortion produced by it, but on the contrary a number of cases of threatened abortion have been averted. Others speak of quinine as a labor-arousing remedy. Many agree under certain conditions that it does arouse, that is when the nervous system needs toning up, the system is relaxed, pulse feeble, pains flagging, the general stimulant and tonic effect of quinine is mistaken for its direct action on the muscular coat of the womb.

Drs. Bailly, of Knoxville, and E. S. Drake, of Fayetteville, Tenn., report the result of continued observation in the use of quinine when women were suffering from uterine contractions during a fit of ague. In all such cases it was their practice, as well as others they knew of, to administer promptly and freely large doses of quinine, and whenever they could see the patient in time they could carry her over her danger. Dr. Marsh, of Louisiana, says that he has had twenty-five years of experience and that he has had the happiest results with quinine in preventing abortions. Drs. Packard, Smith, Taylor, and Yorrow, of Philadelphia, have never seen any tendency in quinine to produce labor, although they have had experience in the matter. Drs. Wolf, Freeman, and Davis, of Indiana, confidently say that they never knew of a case of abortion in which quinine was administered, or instrumental in producing it, but they had seen threatened abortions relieved by its use.

Dr. Otis Mason, in the Transactions of the Virginia Medical Society, says after forty-eight years' use of the drug he has not seen any ill effects, but on the contrary when promptly administered it is a preventive against abortion. Dr. Vadenuke, of St. Petersburg, says quinine is not an abortifacient, but may ward off abortions or premature labor when the mother has malarial fever. Dr. Woodruff, of Ohio, is of similar opinion. Dr. Monteverdi, in the *Nuova Liguvia Medica*, says: "Quinine acts not only as a general tonic but also directly on the uterus, causing contractions. In this respect quinine is thought to be superior to ergot, as it does not, like the latter, act injuriously on the fetus. It may also be given in the hemorrhage occurring in preg-

nant women." He gives a caution in regard to its use in pregnancy complicated with any disease requiring its administration, lest abortion or premature labor be induced.

Dr. B. Wells, La Grange, Ky., in an article opposing the ecboic action of quinine, relates this case: A lady, three months advanced in pregnancy, was suffering from facial neuralgia; he gave 5 grains of quinine, and intended to repeat the dose in two hours, but before the time arrived for the second dose she was suffering considerable uterine pain, and had to be advised to lie down until the symptoms passed off. Dr. J. S. Weatherby says: "False facts in medicine are worse than false theories. I have been prescribing quinine for twenty-five years, and am satisfied that it will arrest uterine contraction when brought on by malaria."

Reasoning from wrong premises, it has been announced that morphine as well as quinine has caused uterine action, when in fact their action has been misinterpreted.

The society at Montgomery, Ala., appointed a committee of Drs. Garton, Baldwin, and Michel to report on the action of quinine. They report that fever of any kind is apt to excite uterine action. That it is especially the case with malarial fever, and if it is not promptly relieved the uterus will expel its contents whether quinine is given or not. That uterine contraction is never due to quinine, but is the effect of the perturbed circulation and the malarial poisoning itself.

The abortive action of quinine was the subject of a prize essay of the Société de Médecine of Ghent. After carefully weighing the evidence, the following conclusions were drawn: (1) That quinine, by producing intermittent contraction of the womb, has in large doses brought on abortion in the early months of gestation. (2) That it should not on that account be withheld from pregnant patients; other things being equal, that an abortion is more likely to be induced by visceral congestion and muscular succussions attending an attack of ague. (3) That the uterine action of the drug is too slow and too uncertain to be relied upon. (4) That, like ergot, it acts most efficiently after labor has begun; a dose of 10

grains being usually followed in inertia by prompt returning of pains. M. Schuppert, of New Orleans, who has given it no little study, cites a good many for and against the oxytocic action of quinine on the uterus, and quotes largely from foreign literature, while there are not a few who favor the opinion of the parturifacient action of quinine. More conspicuously are the Italian physicians, yet there are numerous advocates against it. Schuppert's opinion is that quinine will occasionally act as an oxytocic and produce an abortion.

Dr. Schuppert, on the exanthematous action of quinine, quotes the following: Drs. Hensinger and Morberg, of Berlin, report cases, both were women. The exanthema was limited to the face, while Dr. Kobner, of Dresden, experienced it all over the body. Drs. Hemming and Lightfort have also seen it happen after doses of  $\frac{1}{2}$  to 1 grain. Dr. Gassaway, who had not seen such a result, although a practitioner of twenty years, did not believe that quinine could cause exanthema until he had a patient in which it occurred twice. One of Dr. Schuppert's cases was a man who warned him not to give him quinine, because it caused an eruption, although in former years he had taken it without such results, but of late, when he took four or five grains, experienced an eruption that lasted for some hours. That he had suffered from that eruption a dozen times, each time soon after taking a dose of quinine. The eruption was always preceded by a singular sensation. He relates a case of dermatitis resulting in gangrene, first in one finger, then subsequently, four days after, having occasion to administer more quinine, his other fingers were attacked and scrotum.

Dr. Ringer says that workers in bark sometimes suffer from scaly papular eruptions, sometimes from a vesicular, and occasionally with great swelling of the genitals or of the face and eyelids, itching of the whole body and urticaria. He recited numerous cases reported by Cheviller, Savignel, Gessae, and others, all reported in foreign journals.

Dr. B. Yoe, in the Medical Standard, gives some personal experience with quinine rash. The first attack occurred when taking 2 grains three times a day; later on  $\frac{1}{4}$  of a grain pro-

duced it. The eruption was of an erythematous nature. There was no constitutional disturbance. Dr. A. D. Williams, in St. Louis Medical and Surgical Journal, says that five grains was given a female who claimed to have once been nearly killed by quinine. She promptly went to sleep, and in an hour awoke with an intense itching of the entire skin and the mucous membranes. Soon a papular eruption broke out, then a chill set in followed by high temperature. Other analogous cases were reported, occurring here as well as in Europe, the dermatitis being so intense that the desquamation on the hands resembled fragments of a glove.

Dr. T. J. Mayer, in the New Orleans Medical and Surgical Journal, reports a case of a lady taking five grains of quinine. She stated that she had a decided idiosyncrasy against the drug, and in a short time she was covered with an erythematous rash. He again experimentally administered unknown to her five grains in a capsule, with the result of more aggravated symptoms.

Dr. F. G. Jenkins, Medical Herald, reports giving a dose of quinine to a man who said he was peculiarly susceptible to the drug. Very soon his prepuce became very edematous, red, and shining, the gland could not be seen. The temperature was subnormal. The cutaneous surface was covered with a papular eruption, accompanied by intense itching and burning. He had partial amblyopia. The symptoms lasted twenty-four hours.

Dr. T. N. McLanglen, D. C., relates a case where one ounce of compound tincture of cinchonia produced in a few moments vertigo and redness of face and hands. This erythema was accompanied with nausea, tinnitus aurium, rapid pulse, and quickened respiration. The erythema lasted forty-eight hours, and was followed during the next six weeks by a complete desquamation from his hands to his feet. The same symptoms were produced upon a former occasion by taking two grains of quinine, but no desquamation. The doctor writes that the sudden development of a drug eruption frequently causes the greatest anxiety, because it so closely simulates the eruptive fevers that we are unable definitely to determine the exact



cause for its existence. The various drugs which we are constantly prescribing are so seldom attended by any peculiar or unexpected action, we do not give this question of drug eruptions the attention which its importance demands.

Morrow, in his interesting and instructive work on "Drug Eruptions," says the general proposition that the physician should be familiar with the effects of any drug that he employs in the treatment of disease is axiomatic. He should not only be acquainted with the drug's nominal typical mode of action, but also with its abnormal or incidental effects. Idiosyncrasy is most frequently the only cause to which we can attribute the peculiar effect produced by certain drugs. The usual causes, such as age, sex, social conditions, habits, etc., which we find exerting a modifying or controlling influence in the production of skin diseases, appear to have no special influence in causing the development of drug eruption.

Certain drugs stimulate the cutaneous vascular system, and those suffering with irritability of central and spinal origin, and those who have suffered with constitutional disease exert a marked influence in determining drug eruptions.

Dr. J. A. Ouchterlony: Your paper reminds me of one that was written on the same subject by an old friend, whose premature death we have had to mourn, Dr. R. M. Taylor. If you remember, he read a paper on that subject in the late Louisville Medical Society. The rule was that every person who wished to be admitted for membership had to read a paper, and that was the subject of his inaugural paper. Taylor made a point in his paper that quinine does not produce uterine contraction, but when they have already begun then it intensifies it. That was the gist of his paper. There is a very admirable article on this subject in Wood's *Materia Medica*. I have frequently relied on the oxytoxic powers of quinine in arousing the sluggish uterus to action. I give about ten grains every half hour until about three doses have been given, and as a rule it spurs the lazy organ up. Of course it is understood that it is not to be given when the first stage is incomplete.

Dr. Satterwhite: I never go to obstetrical cases without having quinine with me, and where pains are sluggish I give it. I do not think it has any direct action upon the muscular force, but it acts as a stimulus and tones up the nervous system, and through that medium it arouses the atony which exists. A number of years ago I met with a case of *post-partum* hemorrhage in which a dose of twenty grains of quinine was effective in producing uterine contraction and arresting the hemorrhage, and ever since that I have always had it with me in my obstetrical practice.

Dr. W. H. Wathen: It is very hard to give an opinion with any degree of positiveness as to whether quinine is capable of producing uterine contractions where labor has not already begun. I am prepared to indorse every word that has been said as to the effect of quinine in stimulating uterine contractions during labor. I can not say that I have never known quinine to produce an abortion, but I can say that several women who have had abortions have told me that labor began after taking quinine. I can not say, though, that no other means were used, because I have nothing but what the patients told me, and I may have been deceived. I have given quinine frequently in pregnancy without any trouble whatever.

Dr. J. M. Mathews: I was a country practitioner for six years, and during that time I gave quinine indiscriminately, and I never saw a case of abortion following its use.

Dr. W. Cheatham: In the pamphlet to which Dr. Guntermann has kindly referred, I have recorded the results of my use of pyk-tannin in a variety of conditions. In certain affections of the eye it yields marvelous results.

Dr. J. A. Ouchterlony: I have a couple of illustrations demonstrating some unusual specific affections of the skin. They are very artistic pictures. They were made by a friend and student of mine, Dr. Robertson, of Paducah, a very talented gentleman.

The patient's name was Mattie P., a negro. She came to the University clinic on the 8th of November, 1890. She is nineteen years of age, single. Never had a living child, but one miscarriage. The member of my staff who took these notes failed to say how long since

Her health has always been perfect, with the exception of scarlet fever, mumps, and whooping cough. She did not remember having had a sore upon the genital organs, where primary sores are generally found, but on examination a distinct scar remained on the left. About four or five years ago she had a bubo in each groin. Both made their appearance simultaneously and both suppurred. She does not know how long after the time the buboes made their appearance that a sore about as large as a quarter of a dollar developed between the vulva and right thigh. Then a similar one appeared on the left side in the corresponding place. Buboes made their appearance about a week after last exposure. About three or four months ago, that is previous to November 8th, she had rash all over the body, and at the same time had sore throat. My recollection is it extended over some time. She never noticed any falling of the hair, nor did she have other common general symptoms. Between the vulva and thigh there then appeared six or seven buboes on each side. There is an integumentary lesion just over the right eyebrow, as indicated in the drawing. It is an irregular circular eruption. Within it is another circle. The skin between the two is on a level with the surrounding integument. It has the appearance of syphilitic lepra. It has a centric arrangement, which you know is not often seen. It is more of a horseshoe shape than a complete circle. Then it is found that there is another like this on the right side of the neck and two on the body. When she came to us it had existed three weeks. She was placed on specific treatment, and she has made a very rapid recovery. There was no doubt about the character of the lesion whatever.

The next case is a photograph of a very remarkable appearance. Owing to the carelessness of the person intrusted with the notes I could not get hold of them. As nearly as I can remember the woman had the following history. She is thirty odd years of age. She lived with her husband several years, and finding that he was running around a great deal, and that he had communicated to her a very loathsome disorder, she discharged him and has been living in single blessedness ever since.

The history of specific disease is very well marked. She had been under the care of a physician for a number of months when she first came to the clinic. The treatment had not seemed to make any impression whatever upon her, and I am not at all surprised, for though we succeeded in causing very decided improvement up to a certain point, it stopped. It is the right forehead and the right eyebrow that are the seat of the lesion. It appears to be a papillomatous lesion. It was fully one eighth of an inch above the surrounding skin. The same thing was noticed in the lesion over the upper part of the right cheek. It looks so much like a case of lupus papillomatus I was at first a little at a loss, and in order to settle the question I put her on antisiphilitic treatment, and the marked influence convinced me of the specific nature of the trouble. But she has improved up to a certain point only. There is considerable infiltration of the upper lid, so as to interfere materially both with the perfect opening of the space between the lids, and also with the perfect closure of the lids. Her general condition has improved.

I bring this case before the Society because, during a practice extending over very nearly thirty years, I have never seen exactly such another. I would like to know if anybody else has.

She was put on biniodide of mercury and iodide of potassium, the iodide of potassium being pushed actively. Later on my assistant ordered oleate of mercury to be applied, and there was a very rapid absorption of the neoplasm, but we have not been able to get the skin perfectly clean.

L. S. M'MURTRY, M. D.,  
Secretary

JEFFERSON COLLEGE'S NEW SURGEON.—At a meeting of the faculty of Jefferson Medical College on March 9th, Dr. H. Augustus Wilson was elected Lecturer on Orthopedics in the Jefferson Medical College and surgeon in charge of the Orthopedic Department of Jefferson Medical College Hospital, to succeed Dr. O. H. Allis, resigned.



## Reviews and Bibliography.

**Principles of Surgery.** By N. SENN, M. D., Ph. D., Professor of Surgery and Surgical Pathology in the Rush Medical College, Chicago, etc. Illustrated with one hundred and nine wood engravings. 611 pp. Price, cloth, \$4.50; sheep, \$5.50. F. A. Davis. Philadelphia and London. 1890.

The announcement of a new text-book of surgery by Prof. Senn awakens a more lively interest among physicians in the United States than would the same announcement in connection with the name of any other American surgeon. He has become well and widely known as a progressive practical surgeon as well as a close student and original investigator.

Now that his work is before the profession, it must be to most a surprise and to many a disappointment.

The author tells us in the preface that recent discoveries relating to the etiology and pathology of surgical diseases have made the books of a few years ago old and almost worthless, and that while many recent works are replete with valuable practical information they are mostly defective in the parts relating to the fundamental principles of the art and science of surgery.

As construed by the lesson of nearly every page of his book, his contention seems to be that bacteriology in its relation to surgery has been left too much in the background.

To this one idea almost every thing else is in a greater or less degree sacrificed. The work throughout is indeed a new departure.

The first two chapters are devoted to a description of the processes leading to regeneration and repair, and the two succeeding ones to the consideration of inflammation. These are elaborately and learnedly discussed, and the author ably and ingeniously endeavors, throughout, to draw a distinction between regeneration and inflammation. "Regeneration" he contends, "as studied from a surgical aspect, includes the processes observed in the healing of wounds produced by a trauma, and in the restoration of parts damaged or destroyed by the action of chemical substances by extremes of cold or heat, and by the various destructive inflammatory processes caused by the presence of specific pathogenic micro-organ-

isms; while inflammation, in the widest and most comprehensive meaning of the word, should be made to embrace only those pathological conditions which are caused by the action of pathogenic microbes or their ptomaines upon the histological elements of the blood and the fixed tissues." Perhaps some such distinction as this might be rightly made, and it may be the author's division will be in time accepted, but it seems rather too much like calling only those workmen builders who are laying the stones. Inflammation is certainly a reaction that in some degree is meant for the good of the system, and as such must be a preliminary regenerative process. Besides, it would seem to most minds to partake of the refinements of dilettanteism to say that violent reaction of a broken knee was not inflammation because no microbes were likely contained in it. In all similar instances we should be compelled to decide our definitions with the point of an aspirating needle and the lens of a microscope.

The fifth chapter is devoted to a *resumé* of the literature of the pathogenic bacteria; and of this it may be said that the task is nowhere better performed. Selection is made of those with which the surgeon has to deal, and thus grouped they are treated of in an eminently graphic and lucid manner.

The two following chapters are devoted to the discussion of necrosis, which has of course a close connection with bacteria, while the remainder and very much the larger part of the book treats of the surgical diseases which owe their origin to bacteria; such, for instance, as suppuration, septicemia, pyemia, erysipelas, tetanus, hydrophobia, tuberculosis, actinomycosis, anthrax, and glanders. There is nothing on tumors, nor is anything said of syphilis, diseases of the blood-vessels, stone, or hernia. Fractures, dislocations, amputations, even gunshot wounds of the abdomen, with the hydrogen test, are ignored.

Of course such a work can not be seriously intended as a *vade mecum* for the medical student. And yet for all that it is such a book as the scientific student of surgery would delight in. The man of the quick eye, the steady hand, the alert attention that are needed to

make the good operator, might not in all cases have the patience to search out the islands of practice in this sea of science; he might, at all events, ask to be permitted to learn the staining and culture of bacteria from the working formula in the laboratory. He would likely prefer to have the life history of microbes given in special works on bacteriology rather than in his text-book on surgery, especially when for not a single one of them the author could be excused the fondness of the discoverer.

But while denying the claims of the work to replace the comprehensive text-books in general use, or to be relied on by the student as his only guide in the study and practice of surgery, it is a work of the highest value as an educator; the subjects treated of are placed before the reader in the clearest light, and altogether it is one of the most interesting of medical books.

D. T. S.

**Diseases of the Eye.** By EDWARD NETTLESHIP, F. R. C. S., Ophthalmic Surgeon to St. Thomas' Hospital, etc. Fourth American from fourth English edition with a chapter on Examination for Color Perception by WM. THOMSON, M. D., Professor of Ophthalmology in Jefferson Medical College. Philadelphia: Lea Brothers & Co. 1890.

The fourth American edition of Mr. Nettleship's valuable work on eye diseases shows much increase in size over former editions; indeed the book was first published as a student's guide to ophthalmology, but by the improvements added to each edition it now assumes the importance of a text-book of eye diseases, and as such stands well in the opinion of teachers of eye diseases. It has less volume than most others, yet will be found to contain all the useful knowledge on the subject. Former editions have been reviewed in detail in these pages; therefore it is sufficient to say that to the present edition is added valuable information, and is thereby increased in worth over former editions.

J. M. R.

THE President of the French Republic has conferred on Prof. von Helmholtz the Grand Cross of the Legion of Honor. This is said to be the first time since 1870 that this distinction has been conferred on a German.—*Boston Medical and Surgical Journal*.

## Correspondence.

### PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

At the last meeting of the Academy of Médecine the following subject was brought to notice: A New Antithermic and Analgesic, Iodantipyrine. M. le docteur E. Münzer has recently experimented, at the clinic of M. le Professor R. von Jacksch, of Prague, on the therapeutic properties of a new drug called iodantipyrine, or, more simply, iodopyrine. It was first prepared by Dittmar in 1885.

Iodopyrine is antipyrine in which an atom of hydrogen has been replaced by an atom of iodine. It is a crystalline substance, insipid and inodorous, not easily soluble in cold water or alcohol, but may be dissolved in these liquids at a raised temperature.

A series of clinical experiments upon some patients affected with typhoid fever and with pulmonary tuberculosis have shown that iodopyrine in doses of 50 centigrams to 1 gram, 30 centigrams occasions a diminution of temperature accompanied by perspiration, but without symptoms of collapse. When the antithermic effect of the medicament is exhausted, the minimum of temperature ascension takes place without shivering.

The patients feel themselves subjectively better under the influence of the medicament. The frequency of the pulse diminishes in proportion to the antithermic effect obtained. The same thing, although to a less degree, is observed with regard to the frequency of the respirations. At the same time the pulse becomes more ample, and the respiratory movements augment in extent.

In all the patients who took iodopyrine the urine shows the presence of iodine and of antipyrine. Iodantipyrine does not under test reveal the presence of iodine in a free state, but if nitric acid and some chloroform be added to a limpid solution of iodopyrine the reaction is such as to warrant the conclusion that iodopyrine decomposes in the intestinal tube into antipyrine and iodine, the latter forming at once the iodide of sodium.

M. Munzer has also experimented on the analgesic properties of iodopyrine, but unfor-



tunately he has only been able to do so with a very limited number of patients, his small supply of the medicament being exhausted. Nevertheless the results obtained have been very encouraging, and lead us to believe that, in certain affections at least, iodopyrine as an analgesic is able to prove itself superior to antipyrine.

Thus an intense cephalalgia, localized at the front and at the summit of the head, was relieved by a single dose of one gram of iodopyrine. In this case the cephalalgia was probably of syphilitic origin. While this patient had never presented secondary signs, he had had some months before an indurated chancre.

Like all the antithermic-analgesics, iodopyrine is also an anti-rheumatic medicament, perhaps even more active than antipyrine, as the following observation will show: A patient was admitted into the service of M. von Jaksch with subacute polyarticular rheumatism. The joints of the foot and of the knee of the two sides were swollen and painful. The skin which covers them was red and warm to the touch. The course of the disease was very slow. A dose of 1 gram 50 centigrams of iodopyrine was given, and in six hours after all the morbid phenomena improved to such an extent that the patient was able to walk with the greatest facility. A second taking of one gram of iodopyrine, administered the next day, has led to a complete cure.

M. Münzer has also made clinical experiments with iodantifebrine (iodacetanilide). The results have been absolutely negative, as much in antipyretic as in analgesic action. In the urines of patients who took iodantifebrine he was not able to prove the presence either of iodine or of acetanilide. The cause of the inactivity of iodantifebrine is due, M. Münzer thinks, to the insolubility of the substance, perhaps to a profound modification of the properties of acetanilide, by the fact of its chemical combination with iodine.

**A RARE FORM OF INTERNAL CONTRACTION.**—(Paris Special Correspondent, Vienna.) M. Kundrat has made a communication on a very rare form of intestinal contraction due to the compression of the duodenum by the mes-

entery of the small intestine. This form is so rare that at fifty thousand autopsies M. Kundrat has only observed it three times. The first case concerned a robust man who, being scarcely well of a typhoid fever, presented some symptoms of internal contraction, to which he succumbed at the end of thirty-six to forty-eight hours. At the autopsy an enormous dilatation of the stomach and of the duodenum was found. This was caused by the mesentery so constricting the gut that its lumen had completely disappeared. The rest of the intestine was found in the pelvis. The abdominal teguments were very thin.

The second case concerned a woman who had a tumor of the size of a filbert situated in the crural canal. A hernia seemed probable, as the patient had presented some symptoms of contraction. Various attempts at reduction having failed, the patient was turned over to the service of Professor Albert, where taxis caused the tumor to disappear. Three days later the patient wished to rise, but she was taken with collapse and died. At the autopsy an embolus of the pulmonary artery was found. The tumor supposed to be hernia was a varicose tumor of the saphenous vein. By efforts at taxis the operator had detached a thrombus from this vein, whence the formation of an embolus. The duodenum was compressed by the mesentery, and all the rest of the intestine was in the pelvis.

In the third case the patient was a workman of twenty-two years, who was taken during his labor with pains in the stomach, accompanied with vomiting. He was turned over to the service of Professor Albert, who did a laparotomy. He found the duodenum contracted by the mesentery. The rest of the small intestine had descended into the pelvis.

There are some cases wherein the duodenum is not completely compressed, and where a dilatation of the stomach is also found. These cases are more common in women.

This form of contraction is provoked by a special anatomical disposition of the mesentery and by a lowering of the intestine which exercises a traction on the mesentery. This is why this sort of contraction shows itself especially in individuals in whom the abdominal

teguments are thin or relaxed, and in whom the intestine has been abused by the use of the corset. This trouble can happen also when the intestine is strongly contracted.

This variety of internal contraction is distinguished from others by the fact that it does not provoke troubles of the circulation, but only an impermeability of the intestine. The individuals who are affected therewith succumb to an auto-intoxication by the ptomaines formed in the stomach and the dilated duodenum.

With regard to treatment, M. Kundrat proposes the gastro-enterostomy as the sole means of combating all the accidents. The section of the mesentery presents some enormous difficulties, and is at best only a palliative treatment.

OF THE HEALING OF TUBERCLES.—(Paris Special Correspondent, Berlin.) M. Virchow: In order to be able to speak with precision of the healing of the tubercles and of the modifications consecutive to the injections of the liquid of Koch, it is necessary to distinguish the tissue which constitutes the tubercle itself (properly speaking, tuberculous tissue), on the one part, from the tissue which represents inflammatory exudate (catarrhal and caseous pneumonia), and which are not, strictly speaking, veritable tissues.

This admitted, there is reason to ask, on what does the remedy of Koch act? Does it act at once upon the three classes of pathological products? Without wishing to reply to this question by an absolute negative, I am able to say nevertheless that the visible effects of the injections, those that we are able to study directly, show that the action of Koch's remedy bears in an unequal manner upon the three pathological products already mentioned.

Let us first study the action of the remedy of Koch upon the tubercles properly speaking. If the remedy be really able to cause the resorption of the miliary and submiliary tubercles, this fact should have been proved in one way or another.

I have occupied myself much during my life in the research of cases where a resorption of the tubercles had been produced, but I have never succeeded in getting together a number, though it be small, sufficient for observations of

this species, and I ought to add that this number has by no means augmented since the use of the liquid of Koch.

With regard to the bacilli of tuberculosis, we know that Koch himself has declared that they are not attacked by his fluid.

For that which now concerns the neighboring tissues which are not tuberculous in the strict sense of that word, I am convinced by observations upon the living as upon the dead that it is upon these tissues, modified by irritation and inflammation, that the action of the remedy of Koch especially acts. In a certain sense this is a fact favorable for the patient; let it be understood that it implies the possibility of the elimination of the tubercles with the product of destruction of the neighboring tissues. But on the other hand it implies also the danger of an excessive irritation of these same tissues—danger of which we have several times seen examples.

I may not omit to remark that I have never spoken of the therapeutic value of the injections of the liquid of Koch. I do not say that it is dangerous. I have simply indicated the possibility of the danger without entering into any considerations upon the different cases and the circumstances in which this danger appears.

I desire to say to-day that in my opinion it is the tissue irritated or inflamed in the vicinity of the new formation which is the most influenced by the remedy of Koch. If we apply to the lungs and to the brain the action so well studied upon the skin in lupus and upon the laryngeal mucous membrane, there can be no doubt that the tissues bordering on the tubercles would become therefrom, after the injections, the seat of tumefaction, intense congestion, acute edema, hemorrhagic infiltration, immigration of leucocytes, nay, even of proliferation with formation of new tissue or of its elements.

With the exception of the cases of phlegmonous inflammation of an excessive intensity, of which I have presented to you the anatomical specimens, one can say that all the modifications produced by the remedy of Koch enter into the group of lesions already known, and are only some varied forms of the process of inflammation and of necrosis.



It has been observed, after some injections, that there is a diminution of the zone of thoracic hollow sounds, and this fact has been attributed to the action of the remedy of Koch on the tuberculous tissues. But it is evident that this phenomenon can only depend on a diminution of the catarrhal hepatization accompanying the tubercles, and ought not in any fashion to be placed to the account of the tuberculous tissues, properly speaking.

To sum up that which concerns the anatomical modifications produced by the lymph of Koch, I will say that (1) we do not possess any evidence of destruction of the bacilli; (2) there does not exist any fact directly demonstrating the resolution of the tuberculous virus and the resorption of the tubercles; (3) we have already a whole series of observations to support the fact that the destruction of the tubercles and of the neighboring inflammatory tissues is accelerated by the method of Koch. Otherwise we know nothing still which is of a nature to demonstrate that the injections favor the process of induration and the encapsulation of the caseous masses. Quite to the contrary, there is reason to believe that the liquid of Koch is capable of mobilizing afresh some caseous masses already encapsulated, and of establishing in this manner some fresh centers of infection.

I will say in conclusion that I am far from considering my researches at an end. I acknowledge with pleasure that it will be very important to control the observations of M. M. Grabower and Flatau, in which some submiliary tubercles, appearing during the treatment by the method of Koch, have disappeared in the course of further injections. I do not consider this assertion as impossible, but M. Flatau will pardon me if I deem a little strange the disappearance of tubercles under the influence of a remedy that had provoked the eruption.

PARIS, February, 1891.

A. M. GILLETT.

#### ASSOCIATION OF AMERICAN PHYSICIANS OF BERLIN.

About forty American and Canadian physicians held a meeting on February 19, 1891, at Berlin, in order to found a permanent organi-

zation such as exists in Paris, London, Edinburgh, and Vienna.

Prof. Miller, University of Pennsylvania, now professor at the University of Berlin, called especial attention to the fact that such an organization would not only greatly benefit the physicians who remain here for purposes of study, but also that it would call the attention of Germany to the forward tendency of American medical science. He strongly urged the publication of the Transactions of the Association every year.

Permanent organization was effected, Dr. Judson Daland, of Philadelphia, being elected as president and Dr. F. Weber, of Milwaukee, as secretary.

Prof. Miller, Dr. Amos, of Iowa, Dr. H. Douglas, of New York, and the president and secretary were elected as a Committee on Constitution.

As a Committee on Information to New-Comers and on Organization of Special Private Courses, Dr. H. T. Brooks, of New York City, Dr. Louis Frank, Louisville, Dr. Crystal, Baltimore, Dr. Neal Mitchell, Florida, Dr. Marple, New York, and Dr. Kennedy, Montreal, were appointed.

The object and scope of the society, as set forth in the preamble, are:

*First.* The arrangement of medical work and the formation of special private courses, so that any desired instruction may henceforth be obtainable at the University.

*Second.* The giving of advice to new-comers regarding instruction, lodgings, books, instruments, etc.

*Third.* The reading and discussion of papers of general interest, exhibition of patients, and demonstration of specimens in all lines of work taken up by members.

*Fourth.* The furthering of mutual ends by a more extended acquaintance of the physicians here.

The society at its first session listened to an interesting demonstration of specimens of myocarditis *segmentaire* and of a blood cyst of the aortic valve by Dr. Henry Douglas, of New York City. Dr. Weber then demonstrated specimens of blood of leukemia and pernicious anemia, and talked of the value of Erlich's

methods of blood staining. Dr. Daland talked about malaria and relapsing fever in Russia, and demonstrated the pathological micro organisms of these diseases.

An interesting discussion of these papers followed, thus alone making the benefit of the Association apparent to all.

Drs. Fitzgibbon and Mead, of Wisconsin, and Navy Surgeon Kenyrun were present as visitors.

Prof. Miller then kindly offered the use of the dental lecturing room of the University, Dorothea Street, 40, as a permanent meeting room of the society.

At the second meeting of the society a paper was read by Dr. Dean, of Edinburgh, showing the result of some original investigations of the so-called cancer bacillus. He did not believe the bodies were micro-organisms, but was inclined to think them the result of coagulation, resembling in reaction and physical characters hyaline. A demonstration of specimens containing the bodies followed.

Two patients were then shown by Dr. Weber. The patients had been treated with "Kochine" for four or five months, and one had been pronounced cured, the other as on the road to recovery. Both patients had improved greatly since the treatment was begun. In the sputum of one patient none or very few bacilli were found; that of the other still showed bacilli present. In the one the only abnormal physical sign was a very slight dullness over the apex of the formerly diseased lung.

On March 12th papers were read by Prof. Miller, Berlin, and Dr. Frank, Louisville.

The first paper was a report of a case of pyemia, the result of a wound accidentally infected by matter from a carious tooth. The result of the bacteriological investigation was given, the doctor showing that he found present in the abscesses a bacillus identical with one he had found in carious teeth. The bacillus is pathogenic to mice. Lantern demonstration was then given of the specimens.

Dr. Frank's paper was on Hyaline Degeneration, with demonstrations. The near relation of amyloid was spoken of, also that much of coagulative necrosis probably belongs really to hyaline.

These papers were fully discussed, making the meeting interesting to all present.

The society will continue to meet every other Thursday at Dorothea Street, 40. All American physicians are invited to attend.

New-comers and others desiring information will please apply to the secretary, Dr. Frederick R. Weber, Charité, Berlin.

LOUIS FRANK, M. D.

BERLIN, March 26, 1895.

## Abstracts and Selections.

HOW SHALL WE USE ASTRINGENTS IN THE TREATMENT OF EYE DISEASES?—(A clinical lecture delivered before the medical class of the University of Maryland, by J. J. Chisolm, M. D., Professor of Eye and Ear Diseases in the University of Maryland.) In accordance with my habit this Saturday's clinic will illustrate the didactic teaching of the preceding week, and conjunctivitis has been the subject. It is only by these object lessons that the word painting of the week can be made useful. As this is one of the common affections of the eye which you should be able to recognize at sight, I have purposely grouped the cases so that you can take in at a glance the various phases which this disease of the eye exhibits. They are the so-called colds in the eyes, or, as the books term it, ophthalmia. As a class, they have as the most conspicuous symptom a redness of the surface of the eyeball.

A red eye as a rule means conjunctivitis, and the degree of injection marks the degree of inflammation of this anterior lining of the eyeball. There are other inflammations of the eye which also cause redness. One particularly, in which the greatest degree of congestion is found concentrated around the outer ring of the cornea. I have brought you a case that indicates clearly this red ring. It belongs to the disease known as iritis. In all the other patients which we are looking at the general injection is most marked on the inner face of the lid. The remembrance of this one fact viz., that the greatest degree of redness in conjunctivitis is on the inner face of the lid, while the most marked redness in iritis is a zone of injection around the outer border of the cornea, is a point of great value. It will enable you to make a diagnosis between these two different diseases, the treatment of which differs so totally one from the other.

The first case that I will especially call your attention to is a young man whose eyes burn in the evening, when exposed to artificial light. They then feel as if sand had gotten into



them. After a night's sleep he finds a tendency of the lids to stick together. The face of the eyeball is not much injected, but upon drawing down the lower lid you see a much redder surface than belongs to a healthy conjunctiva. We shall call this a hyperemia of the conjunctiva, or a mild case of conjunctivitis. Such a condition often comes from some error of refraction, with forced use of the eyes, causing eye strain. To successfully treat this patient, we must first find out whether his eyes focus correctly. Should he need glasses, they must be worn for the purpose of correcting the refractive fault which keeps up the injection. In addition to the glasses prescribe a mild astringent to remove the existing inflammation.

The formula will be borax gr. x, aqua camphora  $\text{ʒi}$ , aqua  $\text{ʒi}$ . This is as much camphor-water as is comfortable to patients. I will also write for a drop tube to facilitate the using of this application. Three or four times a day a few of these drops will be put into the eyes. The better method is to have the patient rest his head on the back of the chair in which he is sitting, throw the chin high up so as to make the face horizontal with the ceiling, put some of these drops in the depression at the inner angle of the eye, stretch the lids apart and allow the drops to flow in upon the eyeball, where they should remain for some minutes. The eye will only hold a few drops. The excess is wasted on the face. No harm can come, therefore, should the drops be liberally used.

In this second case, which represents a large group, you see the eye much more injected. The inner face of the lid is quite velvety in its diffused redness. Over the entire so called white of the eye is a network of injected vessels. As the lid is drawn downward strings of whitish mucus are seen. These eyes are painfully gritty all the time. Although the patient has only been affected since yesterday, this morning the lids were so stuck together that they had to be pulled apart. His sight is good, but strong light is annoying. He thinks that he has caught a cold in the eye, and this is the name usually given to this form of conjunctivitis. We see here a higher degree of inflammation than the one previously shown, therefore a stronger astringent would be preferable to the borax solution. As a type of what such an application should be, I will write sulphate of zinc gr. i, aqua rose  $\text{ʒi}$ , a few drops in the eyes three or four times a day. This is as strong as I ever find it necessary to prescribe the zinc solution. Even 1 gr. to  $\text{ʒi}$ , will be often very harsh when coming in contact with the sensitive surface of the conjunctiva, and will be felt for several minutes after the application is made. A favorite

prescription with the majority of physicians, who are not eye surgeons, is five grains of the zinc salt to the ounce of water. This is a needlessly strong solution, and is unwarrantable on account of the pain induced.

I do not know a more impressive lesson that will guide the physician correctly in this matter than to have occasion to use this strength of the zinc solution in his own eyes. I am sure, after such an experience, he will never write for those who intrust themselves to his professional care more than 1 gr. of sulphate of zinc to  $\text{ʒi}$  of water. Often I find even the 1 gr. solution too strong and I am disposed frequently to make the quantity of water  $\text{ʒiiss}$ .

In this third series of cases the general discomfort is more marked. The redness is generally over the whole eyeball. The conjunctiva seems to have been thickened by some serous exudation in its substance. By pressure upon the eyeball through the edge of the lower lid, the conjunctiva can be pressed up into folds or ridges. The muco purulent secretion is more abundant and crusts of dessicated yellow secretion stick to the eyelashes. For the last three mornings the lids were found so firmly glued together that they had to be soaked in warm water before they would come apart. There is a burning feeling of pain in the eyes, with a sensation of weight and also one of grit. Sight is good enough except at times when the cornea becomes smeared with some of the stringy mucus which blurs the vision until the eye can be wiped. For this class of muco-purulent conjunctivitis still a stronger astringent is demanded. I find a solution of nitrate silver gr. i to  $\text{ʒii}$  of aqua destillata a most valuable remedy when used by the physician. A few drops of this caustic solution should be instilled into the eye once a day, and continued for two or three days only. Its action is often magical. From one single application I have sometimes seen nearly all the redness disappear in twenty-four hours, and the eye well advanced to convalescence. I never use a nitrate of silver solution stronger than 5 grains to the  $\text{ʒi}$  even in the purulent conjunctivitis of the newly born. Never give such a prescription to patients to use themselves at their discretion. It is a powerful remedy for good, if used discreetly, but is not a remedy for continuous use. As soon as the excessive congestion with much secretion is diminished, the weaker astringents are to be substituted. When it is necessary to be used, the attending physician should see the patient daily, as it means a serious attack of ophthalmia that needs careful watching. While the nitrate of silver solution is dropped into the eye once a day by the physician, a borax solu-

tion can be used by the patient as often as cleanliness requires; six, eight, or ten times a day is not too frequent. To prevent the lids from sticking, greasing the edge at bed time with vaseline is desirable.

I have mentioned only three astringents from the long list in the *materia medica*, because they form nine tenths of the collyria prescribed by ophthalmic surgeons for inflammations of the conjunctiva. Substitutes for these are numerous, as alum, acetate of lead, tannin, sulphate of iron, sulphate of copper, and bichloride of mercury. Any of these, when in weak solution, make good eye drops. Naturally we adhere to the best in the list, and substitutes are not the best.

What I desire especially to fix in your minds is, to avoid the heroic in the treatment of conjunctival inflammations. Never do too much at a time, often to the detriment of the eye, and always to the annoyance of the patient. In the least of the eye troubles there is anxiety enough with the patient. Do not add physical pain to his mental worry by the administration of harsh remedies which are not called for.

Before prescribing make your diagnosis sure. Of the entire list of eye diseases, and they are very numerous, the use of astringents belong to affections of the conjunctiva alone. In affections of the cornea, iris, and choroid, which diseases also occasion redness of the eyeball, astringents are entirely out of place. One very painful scene in my experience as an eye surgeon, was when a physician brought to me a medical friend suffering with a severe attack of iritis. The eye had the injection of blood-vessels around the cornea, typical of their trouble, with the small lazy pupil, muddy aqueous, severe nasal and frontal pains and dull vision, all so characteristic of this important dangerous disease. The pupil was sticking to the lens capsule, upon which it was pressing, and the eye was rapidly going to the destruction of all useful vision, goaded on by a solution of nitrate of silver grs. x to  $\text{ʒi}$ , which was being assiduously applied four times a day by this devoted medical friend. Every drop put into the eye caused hours of intense suffering. The patient could not stand the pain. While he had every confidence in his medical friend's ability (in this case to be translated ignorance), he begged for additional professional counsel, hoping thereby to receive relief from the persistent agony. When the eye drop was changed from a caustic solution to one of atropia and cocaine, the heavens immediately smiled upon this unfortunate mortal. It was like the pouring of water to put out a fire upon which previously buckets of kerosene oil had been ignorantly used.

To reiterate, when you have made the diagnosis sure, and you have a case of conjunctivitis to treat, if it be a mild case, restrict your applications to the mild astringent, of which borax gr. x to  $\text{ʒi}$ , is the type. When more redness, grittiness and secretion is visible, use sulphate of zinc, never exceeding gr. i to  $\text{ʒi}$ , of water three or four times a day. In the more severe cases, accompanied with muco-purulent secretion in more or less abundance, use your-elf, in the eyes, once a day, a nitrate of silver solution, grs. v to  $\text{ʒi}$  of distilled water. Never give this to a patient for home use; while you are daily instilling the caustic solution yourself, let the patient have a mild astringent for more frequent application at his home.

I have said nothing of boric-acid solutions, so extensively used by some. It possesses no astringent properties. In the treatment of conjunctivitis, in my hands at least, it has been as inert as rose-water, to which the world attributes so much virtue as an eye application. There is no question about its safety and its innocence as an eye drop, to which I will add a third quality, its uselessness, unless you prescribe it as a placebo.—*Maryland Medical Journal*.

FEEDING IN TYPHOIDAL CONDITIONS.—Dr. Henry C. Boenning, Lecturer on Anatomy and Surgery in the Medico Chirurgical College of Philadelphia, in a recent clinical lecture, remarked that for a long time the most serious problem in the management of fever cases was the sustenance of the patient; and up to within a few years ago no case of typhoid was considered to have been properly nourished that did not receive its daily allowance of beef-tea and milk. An important fact associated with these low conditions of vitality was overlooked—namely, the depraved digestive power manifested in the imperfect digestion of all aliment, and the general paresis of assimilation of imperfectly digested substances. In typhoidal conditions there is not only a deficiency in the secretion of the digestive fluids, but also a deficiency in the percentage of the active digestive ferments. This is susceptible of proof; thus in a condition of protracted hyperpyrexia, established in dogs, the gastric juice drained from a fistula is markedly reduced, excessively acid, and practically inoperative on the various albuminoids. A practical series of experiments in this direction proves the necessity of employing a line of foods which are pre digested. In typhoid fever and typhoidal conditions generally it is a very questionable proceeding to fill the stomach of the patient with unchanged albumens or starches, or in fact any substance that has not been catalytically acted



on by an efficient digestive ferment. After surgical operations or injuries of much gravity there is very apt to be the same lack of digestive power as in typhoid, and hence foods ordinarily given should be withheld. It has been my plan, after serious surgical operations, particularly after operations on the uterus, tubes, ovaries, bladder, and intestines, as soon as food is admissible, to order for the patient a teaspoonful every hour, half hour, or more frequently, of some preparation of peptone, preferably that made by Stevenson & Jester, of Philadelphia. Of this preparation I can say that it is a pure peptone, non-coagulable by heat, and always well borne and promptly effective. Gradually the quantity is increased to a tablespoonful, and the intervals between the doses increased or diminished according to the requirements of the case. I consider this preparation of liquid peptone a necessity after every severe surgical operation, and have never known it to be rejected. It is immediately absorbed, or better, perhaps, passes directly into the circulation through the stomach veins, and the effect is prompt and enduring. In addition, in all these typhoidal conditions, I use milk properly peptonized and emulsified by means of the peptonizing "tubes" of Fairchild, of New York; and the result of this method of feeding is apparent at once in every case. If in any typhoid or allied state food, as commonly prepared, is given to the patient, one of three things will happen: either (1) it is rejected, or (2) it is retained and decomposes, or (3) it is partly digested and absorbed, and partly rejected. In view of the lack of the digestive and assimilative power in cases of typhoid or severe surgical shock, it is entirely unjustifiable to fill the stomach of the patient with unchanged and unfermented foods; nothing, in my opinion, should be given except those diffusible and osmoseble substances which, without effort on the part of the patient, will pass directly into his blood.—*Va. Med. Monthly.*

**CHANGES IN THE SPUTUM AFTER INJECTIONS OF KOCH'S FLUID.**—In Koch's paper of November 14th of last year he described certain changes which the tubercle bacilli seemed to undergo after injections of his liquid had been administered. Since that communication was published various conflicting reports have appeared as regards the constancy of these changes, but no very exhaustive and reliable experiments have as yet been made public. Dr. J. Amann, of Davos, has had exceptional opportunities of observing these changes, and appears to have carried out his observations very carefully. His conclusions are published in the *Centrallblatt für Bakteriologie und Parasi-*

*tenkunde*, 1891, No. 1. He has examined the sputa from 198 patients, who were undergoing treatment by Koch's method; frequent examination of these sputa was made both before the treatment was commenced and during the course of the injections. The results are interesting, and may be summarized as follows: (1) The quantity of the expectoration is as a rule increased after well marked reactions. (2) The tubercle bacilli are increased in number. In the sputa of seventeen patients in which no bacilli could be detected before the treatment was commenced on careful, and frequent examinations after injections numerous rods were found. Dr. Amann considers that in this way the liquid is of much value in diagnosis. This increase of bacilli was found in about 70 per cent of the cases; it is probably only transitory, but as the patients in Davos had (when this paper was written) only been under treatment above three weeks no definite opinion on this point could be given. A decrease was only noticed in four cases. (3) The liquid has an undoubted influence on the form of the bacilli. There seems to be an active destruction of the rods, so that they appear as fragments, arranged together in small heaps. Sometimes this occurs to such a degree that no rods are visible. Dr. Amann mentions that he has noticed similar changes after the prolonged use of arsenic. (4) Another change that sometimes occurs is, that after a few injections the bacilli seem to lose their characteristic resistance to the action of dilute acids, so that the stain is in great measure removed from them as well as from the general ground-work of the sputum; consequently only a slight tinge of pink is left, or the bacilli are often completely decolorized. That this is the case is provided by adopting other methods of staining in which no acid is used, such as that introduced by Ziehl. Proceeding in this way Dr. Amann was able, by preparing large glasses, to demonstrate the bacilli in one half of the preparation, while none were to be seen in the other half; the former being prepared by Zeihl's method, and the latter by Neelsen's solution, and decolorized by dilute sulphuric acid. (5) In about 40 per cent of the cases, some time after a reaction, the quantity of elastic fibers in the sputum was considerably increased, and exhibited a complete alveolar arrangement. It will be noticed in the above description that Dr. Amann says nothing about the swollen state of the bacilli described by some observers.—*London Lancet.*

**PERIPHERAL NEURITIS.**—During a discussion, January 8, 1891 (Medical and Surgical Society, Baltimore), Dr. F. C. Bressler said he

had seen a few cases. The first case was that of a woman, thought to be drunk, brought into the city hospital in 1885. She had wrist and foot drop, pain in the ankle and along the tibia; the muscles were atrophied. A diagnosis of poliomyelitis in the adult was made. She stayed at the hospital for one month. Another case (Dr. Spicknall's): A saleswoman, all at once, was attacked by wasting of the hands, arms, and shoulders. Under massage and strychnia she recovered. He saw a girl of seven years, attended by himself and Dr. Chambers for catarrhal pneumonia; was getting better, when suddenly the muscles of her hands and arms began to waste; she had pain in the course of the nerves; tendon reflex was entirely gone. Under massage and strychnia she also recovered. Peripheral neuritis, comparatively a new subject, was brought to the attention of American physicians by Dr. M. Allen Starr, of New York, in the Goldsmith lectures.

Dr. J. W. Chambers said peripheral neuritis is more common than is usually thought. He knew of two non-successful cases of attempted suicide by taking arsenic, but they did succeed in getting a peripheral neuritis. The first case that came to his attention was six years ago. He called it poliomyelitis at the time. Having learned more of the disease, when he saw a case about a year ago, he looked for and found peripheral neuritis. He thought that in a short time we would hear more of peripheral neuritis and less of poliomyelitis. He saw, last winter, a lady who had retroflexed uterus, and was pregnant. She had pains shooting down both legs, and he thought her hysterical at the time; she soon aborted. About six months after there was marked wasting of the lower extremities, and after awhile of the upper extremities also. She is much better now, and is filling up again. In peripheral neuritis there is not so marked a deformity from contraction of the muscles as in poliomyelitis, but in a colored man last winter there was very marked deformity from muscular contraction. It is said that the Argyle-Robinson pupil is pathognomonic in tabes dorsalis, but it has been observed in multiple neuritis. One pathognomonic sign is of no use unless associated with other signs, which must be taken into consideration with it.

Dr. Wm. H. Norris had seen several cases. Six years ago a highly educated lady of a very nervous disposition had been under his care for some time with chronic diarrhea. She went to New Orleans for the winter, and returned in the spring with malaria. About this time she became very nervous over some bonds. She was suddenly paralyzed and suffered great pain. A diagnosis of multiple neuritis was made. She became much atrophied, and there was

considerable muscular deformity. She died about three years ago. From one hundred and twenty-eight pounds at the beginning of the attack she was reduced to sixty-five pounds at the time of her death.

Dr. G. J. Preston said the cases narrated go to confirm him in the opinion that peripheral neuritis is a more common disease than it is usually thought to be. It seems to be an American disease, as we do not hear much of it in Europe. This may be due to the pressure of our American civilization, or it may be because it is more closely observed, and in consequence is more frequently reported. Poliomyelitis will often recover, almost perfectly and rapidly, even in cases where the paralysis is marked. It is probable, in these cases, that the large cells in the anterior horns may be affected (not destroyed) sufficiently to interfere with their functions.—*Virginia Med. Monthly*.

CLINICAL OBSERVATIONS ON SOME NEW PHARMACEUTICAL PREPARATIONS.—In a paper read before the thirty-fourth Quarterly Meeting of the North Central Ohio Medical Society, held at Mansfield, Ohio, September 26, 1890. Dr. R. Harvey Reed, of Mansfield, says:

"Every age in medicine and surgery has had its fanatics, who seemed to live for little else excepting to ride some particular hobby to death; while, on the other hand, every age has had its old fogies who would rather perish than turn an inch to the right or left of the old time-worn rut of their forefathers.

"The hundreds of worthless 'new remedies' that are placed before the profession for their patronage from year to year is enough to disgust them with all new remedies. It seems to me that many of our manufacturing chemists spend the bulk of their time seeking for something that is new, regardless of its real merits or value.

"If only they can strike the profession with a 'new remedy' of some description or other, they are perfectly happy.

"But with all these criticisms we must admit there is now and then a new remedy comes to light which has real and lasting merit, which in a large degree atones for the defects of many of its worthless compeers."

Then after referring most favorably to the non irritating preparation of *Cascara Sagrada*, prepared by Mr. J. LeRoy Webber, Ph. G., the author makes the following statement as to his experience with *pancrobilin*:

"In this direction, however, we have another 'new remedy' which has gradually engrafted itself into my good graces, which is becoming more and more permanent the longer I use it. This is what is known as '*pancrobilin*' and it is



a combination of pancreatin and bile, and placed upon the market in form of a liquid and a pill, of which two I consider the latter more preferable.

"In cases where there is a diminished quantity, or even an absence, of these natural products, especially the bile, resulting in the distressing complication of intestinal or duodenal indigestion, I have found this preparation of decided value by assisting the intestinal digestion until the normal functions of the liver and pancreas, but especially the former, could be established.

"In constipation attended with flatulence, the result of an inactive liver, I have found this remedy of great value, promptly relieving the flatulence, and producing natural colored stools of a normal consistency, in place of the pale ash-colored feces, or the dry hard scybala of the chronic dyspeptic.

"After a careful trial of some three years in a variety of cases affected with constipation resulting from congestion of the liver, and in cases in which there is an atonic condition of the coats of the bowels resulting in intestinal indigestion, I am frank to say that I know of no two remedies that will give as prompt relief to these conditions as the ones under consideration.

"In the one class of cases the pancrobilin supplies the intestine with an artificial supply of bile and pancreatin, which digests the food that otherwise would not be digested, thus giving relief until the real difficulty with the liver can be overcome. In the other class of cases the Cascara Sagrada tones up the intestine, increases the secretions, which in turn facilitate digestion, and relieves the constipation.—*American Lancet*.

**HYPERTROPHY OF THE PANCREAS.**—Prof. Generisch, of Clausenberg, recently found, on making a *post-mortem* of a middle-aged man, that a tumor which could be felt through the abdominal walls was the greatly enlarged head of the pancreas which embraced the duodenum. The latter was much contracted, so that it was only large enough to admit the thumb. The upper portion of the duodenum, however, was enlarged to about the size of the colon; the stomach was also dilated and the muscular coats of both stomach and duodenum were hypertrophied; the annular portion of the pancreas was found to be supplied by special arterial and venous twigs, and it was furnished with a special branch from the ductus communis choledochus. This combination of a ring-like pancreas surrounding a contracted duodenum has been occasionally noticed before in cases described by Symington, Ecker, and

Aubery, and an approach to the same condition has by no means unfrequently been observed where there has been an abnormally developed pancreas partially surrounding the duodenum, which even then is frequently found to be contracted. In both classes of cases there seems to be a tendency for the stomach and upper part of the duodenum to become dilated. This dilation may be produced, when there is no contraction of the duodenum, by a "kink" being formed in the gut, owing to the fixation of the duodenum, the result being that the stomach and duodenum become distended with food, and permanent dilatation and hypertrophy are induced. This is interesting from a clinical point of view. Further, Prof. Generisch remarks that in cases of abdominal tumor it is well to remember that a hypertrophied head of the pancreas might convey much the same impression by the touch as a carcinomatous pylorus.—*London Lancet*.

**ELIMINATION OF IRON BY THE BILE.**—That iron is present in the bile has been known for a long time, but the exact quantity eliminated by this channel and its significance have, perhaps, been exaggerated by some physiologists. Hamburger's researches, although ten years old, are still of great importance, for he established the fact that the largest part of the iron introduced into the body, either naturally in the food, or given in the form of preparations of iron, is eliminated in the feces, a very minute trace by the urine, and excessively little by the bile. Thus a dog, in the course of thirteen days, received 180 milligrams of iron, and in the same time 136.3 milligrams were eliminated by the feces, 38.4 milligrams by the urine, and 1.8 milligram by the bile. He also showed that the iron eliminated by the bile is but little influenced by variations in the amount of iron introduced by the mouth, so that the iron in the bile must be regarded as an index of the hematopoietic or hemolytic action of the liver. Dastre (*Archives de Physiol.*, No. 1, January, 1891, p. 136) subjected a large dog, with a biliary fistula, to strict dietary, and collected most carefully the bile excreted daily. He finds that the proportion of iron in the bile excreted is very variable. As a mean, it is 0.94 per cent of the dry residue, although there are very considerable variations even in a regular and exactly similar diet, so that Dastre also finds that the hepatic iron depends more on the blood formation or blood destruction in the liver than on the alimentary conditions. The quantities of iron excreted in the bile of a dog weighing 25 kilos (55 pounds) vary from 2.34 to 0.09 milligrams per day per kilo weight of the animal.—*British Medical Journal*.

# The American Practitioner and News

"NEC TENUI PENNÄ."

Vol. XL SATURDAY, APRIL 11, 1891. No. 8

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## AMERICAN MEDICAL ASSOCIATION.

The Journal of the Association gives due emphasis to an important addition to the society's by-laws, to wit, the *copyrighting of the programme*. It says:

"The attention of the committees having charge of the compiling and printing of the Official Programme is called to the following resolutions unanimously adopted at the Nashville meeting:

"Whereas, Certain parties without authority are presuming to make use of this Association for the furtherance of advertising interests; therefore,

"Resolved, That at all future meetings of the Association such publications be excluded from the place of meeting either of the General Sessions or of its Sections.

"Resolved, That in the future each chairman of the Committee of Arrangements be directed to procure a copyright of the Official Programme, to the end that the financial rights of the Association may be protected by due process of law."

The wisdom of the framers of these resolutions can not be too strongly commended; for it is but too patent that some of our medical societies are open to the imputation of affording

better facilities for the advertisement of proprietary preparations than for the exposition of scientific medicine.

What particular phase of the *opprobrium medicini* is contemplated by the resolutions, we may not divine, but it is clear that reform in some directions is the crying need of the hour, more vital than the subject of medical education, and quite as interesting as the latest doings of "tuberculin." For, put it as mildly as we may, the average doctor is a kind-hearted gentleman, with too much faith in the healing power of drugs, and a confidence too easily betrayed by the peripatetic exhibitor of so-called "fine pharmaceuticals."

We can not too highly commend the efforts of our best manufacturing chemists to secure to the profession eligible preparations of pure drugs and chemicals. This work is a godsend to the doctor, and can not be too liberally advertised. But when the patent medicine concoctor takes the field with composite prescriptions covered by copyrighted names and backed by "formulas" which do not give the exact quantities of all ingredients entering into their make-up, the doctor, if he have a just sense of what self-preservation means, will dismiss the vendor's agent with a few smooth phrases, and take good care not to call the attention of his *clientelë* to the samples left; for just so sure as he yields to the blandishments of these mild-mannered men he will some day find to his grief that he has been playing fly to the spider.

The medicine being understood by his patients as having the physician's sanction as good for the relief of certain symptoms, will be called for at the druggist's counter, dispensed, and taken without his order or consent. This is just what the concoctor was playing for at the start, and the physician may expect in no great lapse of time to find the same preparation which he has kindly commended to his patient flaunted abroad in the religious and secular papers side by side with the most opprobrious nostrums of quackery. "Read my riddle well; he who runs may read;" but many who run well in physic fail to read it, and are unwittingly cutting their own and brother doctors' throats.

No far-seeing physician who attends the great



associations of the land can fail to see that the sort of man here under notice has managed to get a foothold among the sanctioned exhibitors. If the above resolutions provide for his exclusion from the national association, they constitute a measure of reform much needed and in the right place.

The chairman of the Committee of Arrangements calls attention to a most important matter in the following notice:

"NOTICE TO SECRETARIES OF SECTIONS.—The programme should be in hand one week before the meeting of the Association. It will be impossible to print correctly a list of addresses and papers received after that date. Secretaries of Sections will insure accuracy in the programme, and greatly facilitate the work of the committee by sending their lists in time.

"C. H. A. KLEINSCHMIDT, M. D.,  
"Secretary Com. Arrangements."

### Notes and Queries.

THE TONGUE IN SCARLET FEVER.—Authorities differ as to the constancy and diagnostic significance of the appearance of the tongue in scarlet fever. Upon the suggestion of Prof. Fürbringer, Dr. Neumann made a series of observations on the tongue in forty-eight cases of scarlet fever at the Friedrichshain Hospital, at Berlin, and records in the *Deutsches Archiv für Klinische Medizin*, January, 1891, the results of his investigation.

The changes in the tongue presented themselves in three stages. In the first the mucous membrane became swollen, and the tongue was enlarged and corrugated on its surface, while the epithelium became cloudy. The tongue also presented the appearance of being heavily coated, except at the tip and margins. In the second stage desquamation took place. This was most marked at the surface of the fungiform papillæ, and gave rise to the characteristic appearance of the strawberry tongue. In the last stage restoration of the epithelium took place, at times with such rapidity as to cause the tongue to again appear coated. Naturally deviations from this typical course occurred. These could be explained by antecedent or complicating conditions.

The characteristic appearances of the tongue presented themselves in thirty-eight of the forty-eight cases, carefully inspected at intervals of two or three days—that is, in seventy-nine per cent. In six cases no appreciable changes occurred. In five of these there had been digestive derangement or septic intoxication; while in the remaining one no complicating condition could be discovered.

In the majority of the cases desquamation took place from the third to the fifth day of the disease, and left for more than four days longer the strawberry tongue, which in twelve cases was still present on the fourteenth day. Thus in a third of the cases the strawberry tongue disappeared during the first week; in another third, during the second week; while in the remaining third it was still present at the end of the second week. There was no relation observed between the intensity of the changes in the tongue and those in the skin.

From the foregoing it may be concluded that the appearances of the tongue in scarlet fever constitute a characteristic though not a constant feature of the disease.—*Medical and Surgical Reporter*.

*Editors American Practitioner and News:*

NOT ALTOGETHER MEDICAL.—The following article was read under peculiar circumstances at the March meeting of the Hardin County Medical Society. Some of my friends having expressed a desire to read it, I have concluded to trust it to your tender mercies. I believe it will be of some interest to my friends if not to yours.

T. B. G.

In passing along through life we are not unfrequently reminded of the verification of some maxim or saying of some author of the past.

This fact was recently palpably and very pleasantly impressed upon my mind. The saying in this instance was: "A touch of sympathy maketh the world akin." The circumstance above alluded to, which so forcibly convinced me of the truth of this sentiment was the illness of the writer during the past fall, when so many of my friends in the profession visited me, and many more made kind inquiries in regard to my condition. This character of kindness was not only manifested by my medical

brethren, but by a great number of friends. I never appreciated so much before the exhibition of friendship and sympathy of my acquaintances and friends as at present, and I can assure everybody that this is a desirable feeling to possess. It enables us to entertain a more charitable opinion of the world, and enlarges our philanthropy, while at the same time it teaches us our duty to our fellow-man.

I think there is nothing so pleasant in our advancing years as the possession of the confidence and sympathy of our friends and acquaintances, and I now begin to feel like our great *confrère* and exemplar, Dr. Holmes, who seems to be as happy and enjoys life in his declining years as much as when young. To be sure we can not expect to have meted to us the same degree of happiness that he enjoys on account of his much greater attainments both in medicine and literature as well as his extensive acquaintance and renown, but at the same time we can enjoy the sympathy and kindness of our friends to the extent of our fullest capacity; and so, if we are perfectly happy with our situation in life, we should be satisfied and not expect any thing in this particular beyond our capacity to entertain. If our cup is full we should not complain because some one else's cup is larger. Let us be satisfied if our happiness is equivalent to our capacity for enjoyment.

While speaking of the sympathy and kindness of friends I omitted to mention the love and devotion of my family and relatives. As soon as they heard of my sickness, although many of them were at a distance, they flocked around me and nursed and watched over me for days and nights together. Such attention and affection should bind one to his family, not only with bonds of love but everlasting gratitude.

No man can ever fully appreciate true love and happiness unless he has a family. Therefore I would seriously advise all young doctors to marry. It is better for them professionally speaking, and much better as it respects their own happiness.

I have always possessed a kind feeling toward my medical *confrères* and enjoyed being with them, but, if possible, I now have a warmer feeling of friendship than ever; in fact, you might say, I love them. I love to take them

by the hand and experience the pleasure of the friendly grip. This feeling I always expect to cultivate.

"Affection knoweth naught of time,  
It riseth like the vernal flowers;  
The heart pulse is its only chime,  
And feelings are its hours."

I have always endeavored to cultivate and encourage kindly feelings between members of the profession, and avoid saying or doing any thing calculated to wound the feelings of my neighboring *confrères*.

"The magic of a gentle word  
Or smile sends forth a strain,  
Sweet as angelic music heard  
From some celestial plain."

To our younger brethren, who may not be prospering as they think they should, I would remark for encouragement:

"That lad who climbs yon oak with agile speed  
Shall one day gird the sword upon his thigh  
And have fame implanted on his brow."

If you have ambition do not endeavor to become famous by evil deeds, and remember that

"Not more survives from good than evil deeds:  
The aspiring youth who fired the Ephesian dome  
Outlives in fame the pious man that raised it."

Always be charitable to the needy, and do not allow yourselves to take

"Pelt for your god; it is the mighty calf  
Set up by the richer half."

And recollect the triplet:

"But the warm heart that lights the poor man's door,  
And puts a song where groans were heard before,  
Brings peace to us and gratitude from the poor."

By observing these precepts you will

"Maintain your honor, however strong  
Temptation lures you with her siren song."

And thus

"Your hearts become the proper dwelling-place  
Of all things that are pure and beautiful."

And now I would again express my feelings of gratitude to my medical friends for their kind attention and solicitude on account of my late illness, and can frankly say:

I thank thee, Heaven, our lengthened life  
Has passed in love unmarred by strife.

T. B. GREENLEY, M. D.  
WEST POINT, KY.



CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—Congress of American physicians and surgeons will hold its second triennial meeting in Washington, D. C., September 23–25, 1891, under the presidency of Dr. S. Weir Mitchell, of Philadelphia. The vice-presidents, *ex-officio*, are: The president of the American Surgical Association, Dr. C. H. Mastin, of Mobile, Ala.; the president of the American Ophthalmological Society, Dr. Hasket Derby, of Boston; the president of the American Otological Society, Dr. Gorham Bacon, of New York; the president of the American Neurological Association, Dr. Wharton Sinkler, of Philadelphia; the president of the American Gynecological Society, Dr. A. Reeves Jackson, of Chicago; the president of the American Dermatological Association, Dr. Francis B. Greenough, of Boston; the president of the American Laryngological Association, Dr. William C. Glasgow, of St. Louis; the president of the American Climatological Association, Dr. Frederick I. Knight, of Boston; the president of the Association of American Physicians, Dr. William Pepper, of Philadelphia; the president of the American Association of Andrology and Syphilology, Dr. Fessenden N. Otis, of New York; the president of the American Orthopedic Association, Dr. Newton M. Shaffer, of New York; and the president of the American Physiological Society, Dr. Henry P. Bowditch, of Boston. The chairman of the Executive Committee is Dr. William Pepper, of Philadelphia. The treasurer is Dr. John S. Billings, of the army. The secretary is Dr. William H. Carmalt, of New Haven. The subjects for report and discussion mentioned in the preliminary programme are as follows:

*Tuesday, September 22d, 3 P. M.* Conditions underlying the Infection of Wounds, including a discussion of Disinfection with Reference to the Treatment of Wounds, of the Relation of Bacteria to Suppuration, of the Resistance of Tissue to the Multiplication of Bacteria, and of the Effects of Antiseptic Agents on Wounds. Referee, Dr. William H. Welsh, of Baltimore; co-referee, Dr. Roswell Park, of Buffalo. The discussion will be adjourned, if necessary, until Friday afternoon.

*Wednesday, September 23d, 3 P. M.* The Late

Manifestations of Syphilis. Referee, Dr. Phineas S. Conner, of Cincinnati; co-referee, Dr. Abner Post, of Boston.

*Wednesday evening.* The President's Address, to be followed by a reception.

*Thursday, September 24th, 3 P. M.* Fibroid Processes (Chronic Interstitial Inflammation, Scleroses); their Pathology and Etiology, with Special Reference to the Influence of Diathesis and Heredity. Referee, Dr. Alfred L. Loomis, of New York; co-referee, Dr. William Osler, of Baltimore.

*Friday, September 25th, 3 P. M.* If necessary the discussion on The Conditions underlying the Infection of Wounds, etc., will be resumed.

### HOSMER A. JOHNSON.

OBITUARY FEBRUARY 26, 1891.

We mourn for him whose life has flown  
Out from its fragile shell of clay  
Into the nightless, perfect day,  
To reap the fruit that here was sown.

Not all the good of earth die young:  
Of him no truthful tongue spoke ill;  
And praises to his gentle skill  
By twice ten thousand hearts are sung.

For him no banners drape the air,  
No half-mast flags droop in the blue;  
But tears shall fall as evening dew,  
And science garb of mourning wear.

No need of shaft to mark the bed  
Wherein his dust dissolves in dust—  
Fair Science keeps her own in trust,  
If they but walked where Nature led.

No nation honors those that stand  
And battle with the living death—  
The stalking plague and poisonous breath  
More fatal than the foeman's brand.

No rifled gun nor keen-edged sword  
Can reach the enemy he fought;  
Death in its ghastliest form he sought,  
Yet not for honor nor award.

'Twixt Death and human kind he stood:  
Let fame on such no longer frown,  
For deeds of blood award no crown,  
But rather for the doing good.

Man's friend he was; foes had he none  
In fruitful youth or ripened age—  
His life a clear and blotless page  
Of noble deeds more nobly done.

No bias warped his balanced mind,  
 To superstition ne'er a slave;  
 Let this be written o'er his grave,  
 "He gave his life to all mankind."

Such men kind Nature ever needs  
 To reason from effect to cause;  
 Yet shows them only half her laws,  
 To spur them on to nobler deeds.

For these the stony paths she smoothes,  
 And guides her children in the night,  
 While far beyond she hangs the light  
 That lures them on to greater truths.

What need his virtues to portray?  
 What need his memory to defend?  
 As patriot, healer, sage, and friend  
 He walked in his Great Master's way.

WILLIAM G. EGGLESTON.

WHEN SHOULD MEDICINE BE TAKEN?—The editor of the *Medical Summary* for November thus discourses on this topic: The proper time for the administration of medicines is of equal importance, in many instances, with the selection of the medicine itself. The sooner physicians realize this fact the better for the patients. A large number of medicines are used in a routine way, after meals; but too often, when so employed, they are not properly absorbed, or they hinder digestion, and thus undermine the foundations of nutrition. For example, if the bromides be given after meals their absorption is hindered, and their presence in the stomach interferes with the peptic ferment; so that, in addition to the depression caused by the bromide treatment, we have superadded that which follows derangements of digestion. Some medicines can be taken at any time, because of their diffusibility; other medicaments, in order to produce good results, should be exhibited after meals; and others again should be used only between meals, when the stomach is presumed to be empty. The administration of pepsin and pancreatin furnish excellent illustrations of these principles. When the secretions of the stomach are sufficiently acid, pepsin alone can be used in the course of half an hour after food; but if there be a lack of acidity, it will be advisable to combine the pepsin with an acid, preferably hydrochloric acid, which is the normal acid of the stomach.

Should gastric digestion be slow or imperfect, a little more acid can be added from time to time, although there will be no need of increasing the amount of pepsin provided the peptones are taken up. In the use of pancreatin, on the other hand, the acid condition of the stomach will destroy its activity. This will not take place, however, if the pancreatin be taken with food just after the first mouthful is swallowed, or if the preparation be taken about two or two and a half hours after, when the contents of the stomach are supposed to be neutral in reaction.—*Medical Age*.

IMPACTION OF ARTIFICIAL TEETH IN THE LARYNX.—Mr. Lennox Browne records a case of unrecognized impaction of artificial teeth for twenty-two months, with successful removal. The patient was a lady about thirty-five years of age, who had become very much emaciated. It had been considered by two gentlemen, who had used the laryngoscope, to be merely a question of diagnosis between cancer of the larynx and laryngeal phthisis. On looking down the throat with the mirror Mr. Browne saw impacted across the larynx, fixed in each hyoid fossa, what he diagnosed to be a plate of artificial teeth. It apparently divided the larynx into two equal halves. Chloroform was given for the purpose of allaying spasm, but not to insensibility, and taking a pair of rectangular forceps he lifted the plate up on the left side; this was followed by a violent paroxysm of dyspnea. On pushing the chloroform a little he was enabled to withdraw the foreign body by his finger passed far down. The after-treatment consisted merely in the application of the cold coil. There was some traumatic perichondritis which impeded the left vocal cord, but the patient made a good recovery. The teeth had been lost during an attack of vomiting and dyspnea twenty-two months previously.—*Boston Medical and Surgical Journal*.

A CASE OF TRISMUS NEONATORUM TREATED WITH SULFONAL.—Dr. Julius Berenyi reports the case of a child, eight days old, who developed tetanus on the fifth day after birth. On examination he found the internal organs nor-



mal, the pulse was 148, the respirations 50 and quiet. The paroxysms were initiated by crying fits and great restlessness. The skin assumed a bluish color, and around the root of the nose the integument was thrown into thick folds. The nostrils became distended, the buccinators were rigid, the mouth was slightly opened, but would not admit the tip of the little finger. The abdominal wall was hard and tense, the upper extremities crossed in a flexed position over the chest; the thumbs were spasmodically flexed inward, the vertebral column was perfectly rigid. From 9 o'clock in the morning to 2 o'clock in the afternoon the little patient had five attacks, of which the fourth lasted an hour. Berenyi administered twenty centigrams of sulfonal in an enema, and also gave the drug by the mouth. After the fifth attack, which was less intense than the others, the child began to take the breast. On the same day three attacks of diminished severity occurred. On the following day the paroxysms became less frequent and intense, and on the sixth day of treatment had disappeared completely. Altogether ten grams of sulfonal had been employed, without the occurrence of somnolence or disagreeable after effects.—*Pester Mediz-Chirurg. Presse*, No. 7, 1891; *Therapeut. Monatsh.*, March, 1891.

**A LESSON IN LONGEVITY.**—The Medical Age draws a lesson in longevity from the life of the late George Bancroft, in which, while it admits that there is no system of living which will insure longevity, yet, withal, there are certain considerations tending that way, and which, if carefully lived up to, offer probably the best chance of reaching close to, if not quite, the hundred year period. The following pertinent advice is given:

Live as much as possible out of doors, never letting a day pass without spending at least three or four hours in the open air.

Keep all the powers of mind and body occupied in congenial work. The muscles should be developed and the mind kept active.

Avoid excesses of all kinds, whether of food, drink, or of whatever nature they may be. Be moderate in all things.

Never despair. Be cheerful at all times.

Never give way to anger. Never let the trials of one day pass over to the next.

The period from fifty to seventy-five years should not be passed in idleness, or abandonment of all work. Here is where a great many men fail—they resign all care or interest in worldly affairs, and rest of body and mind begins. They throw up their business and retire to private life, which in too many cases proves to be a suicidal policy.

During the next period, the period from seventy-five years to one hundred years, while the powers of life are at their lowest ebb, one can not be too careful about "catching cold." Bronchitis is a most prolific cause of death in the aged. During this last period rest should be in abundance.

**THE LATEST REMEDIES FOR TUBERCULOSIS.**—Each week heralds a new remedy for tuberculosis. The latest are:

Prof. Liebreich's method by injection of cantharidate of potash in doses of two deci-milligrams.

Dr. Bernheim, of Paris, is treating tuberculous patients by transfusing the arterial blood of the goat into their veins.

MM. Hericourt and Richet have published the results obtained by the injection of the serum of dog's blood in doses of 1 to 4 c. c. every three or six days.

Recently, before the Section in General Medicine of the New York Academy of Medicine, Dr. J. B. White read a paper on the therapeutic value of gold and manganese when subcutaneously administered to those patients suffering from pulmonary or other forms of tuberculosis. He makes use of a solution, each drop of which represents one fiftieth of a grain of some salt or salts of the metals. For injection, one or two drops of this are added to five or ten minims of a one-per-cent solution of carbolic acid.

All these experimenters claim favorable results.—*The Medical Age*.

**FRÄNKEL'S OPINION OF KOCH'S METHOD.**—At the meeting of the *Berliner Medizinische Gesellschaft* on February 25th, the discussion on Fränkel's address came to an end. Prof.

Fränkel in reply said: "I am of opinion that tuberculin exercises a direct influence on those parts of the body where tubercle bacilli exist, and where they have caused changes to take place; and that this influence consists in a corrosive action with supervening necrosis. Thus I uphold my opinion that tuberculin is a specific for tuberculosis. If this be so, whence comes it that its therapeutic action is so much called in question? I think the answer is, Because tuberculin (1) does not affect the tubercle bacilli, and (2) because it has some untoward by-effects." He carefully weighed the *pros* and *cons* of the tuberculin treatment, such as his own experience had made known to him, and said that though fully alive to the possible dangers of the injections, he had found the curative effect in many cases so marked, so much greater than he had yet observed to follow any other therapeutic method, that in his opinion the physician, after having carefully and conscientiously selected suitable cases, must calmly face the danger, in the same way as the surgeon does day after day.

**DRUGGIST'S ERROR IN GERMANY.**—The Chemist and Druggist, January 31, 1891, says: A singular case in connection with a mistake in dispensing is now occupying the attention of the Berlin authorities. Some time ago a prescription was presented to the assistant at a Spandau pharmacy, ordering a draught composed of sodii nitrat., potas. bromid., aq. dest., and syr. mannæ, for a child. The assistant by mistake dispensed spirit of camphor instead of distilled water, but the error was discovered after the administration of the first dose to the patient, and no ill results followed. But the father thought he would try to make some capital out of the mistake, and threatened the pharmacist with exposure, demanding first 3,000 marks as hush money, and when that was refused, dropping his price for secrecy to 140 marks. But the chemist declined to compromise, and the father wrote about the mistake to the local press. The police got wind of the affair, and they are now killing two birds with one stone. The chemist's assistant was prosecuted for causing bodily injury through carelessness, and fined 50 marks, and the would-be

blackmailer is being dealt with for the more serious offense of trying to commit illegal extortion by threats.—*Med. and Surg. Reporter.*

**STILL ANOTHER REMEDY FOR TUBERCULOSIS.**—Whatever may prove to be the value of Koch's investigations of the injection of "tuberculin," his claims for it have served to greatly stimulate research.

Di-patches from Berlin announce that Prof. Liebreich, in conjunction with the approval of Virchow, is using in tuberculosis, by the epidermic method, a solution of the potassium salt of cantharidic acid, or cantharidate of potash.

It is stated that Liebreich's remedy is not bacteriological, but pharmacological, and can be easily prepared at a price which will make it available for the poorest. Further, its administration is not followed by febrile or other mal-reaction.

It is reported that the method of use is to be communicated later, and Prof. Liebreich is actively pursuing his investigations, although it is as yet premature to announce results.

Clinical experiments by Drs. Fränkel and Hermann are claimed to confirm Liebreich's experience of the utility of this agent in laryngeal and pulmonary tuberculosis.—*Medical Age.*

**THE PREVENTION OF NARCOTIC INEBRIETY.** At a meeting of the American Association for the Cure of Inebriety, held February 18th, at the Academy of Medicine, New York, Dr. J. B. Mattison, of Brooklyn, offered the following preamble and resolutions:

*Whereas*, A leading cause of morphinism, chloralism, and cocaineism is the facility with which morphine, chloral, and cocaine can be procured from pharmacists; and,

*Whereas*, The refilling of prescriptions containing these drugs is a potent factor in the rise and growth of these diseases:

*Therefore*, Be it resolved, as the sense of this Association, that no retail druggist should sell morphine, chloral, or cocaine, except on a physician's prescription.

That no prescription containing morphine, chloral, or cocaine should be refilled except on the written order of a physician.



These were unanimously adopted, and a committee consisting of Drs. Mattison, Crothers, and Wright, was appointed to secure legislation along the line of the resolutions.—*Journal of the American Medical Association*.

**STYRONE IN OTITIS MEDIA.**—Dr. Cheltsoff strongly recommends the employment of a solution of styrene in chronic inflammation of the middle ear. Two forms of styrene exist, both, of course, having the same formula,  $C_9H_{10}O$ ; one consists of acicular crystals, melting at  $33^\circ C.$ , and dissolving readily in ether and alcohol; the other—which is cheaper—is a yellowish liquid with an acrid taste, insoluble in water, but readily soluble in ether and alcohol. It is this latter form that Dr. Cheltsoff has used. He orders a solution of the strength of about a dram to four ounces of spirit, of which from two to four teaspoonfuls are directed to be mixed with a tumbler of warm water for each syringing; the operation should be repeated two or three times a day. Styrene being both strongly disinfectant and deodorant as well as somewhat analgesic, the secretion soon diminishes and becomes less unpleasant, besides which the pain, if present, is ameliorated. No irritation is produced as when many other substances are used in sufficiently strong solutions to destroy the micro-organism present in the secretion.—*Lancet*.

**"INTERNATIONAL CLINICS."**—J. B. Lippincott Company will, beginning with April, issue quarterly thereafter a work entitled "International Clinics." This work will comprise the best and most practical clinical lectures on medicine, surgery, gynecology, pediatrics, dermatology, laryngology, ophthalmology, and otology, delivered in the leading medical colleges of this country, Great Britain, and Canada. These lectures have been reported by competent medical stenographers, and thoroughly revised by the professors and lecturers themselves. The object of the work is to furnish the busy practitioner and medical student with the best and most practical clinical instruction in concise form. Each volume will consist of over three hundred and fifty octavo pages, illustrated with photographic reproductions of important cases.

**STUDY OF MEDICINE IN THIBET.**—The British Medical and Surgical Journal, February 5, 1891, says: The Buddhist Lamas' University, in the Transbaikal Province of Thibet, has a medical course of ten years. According to Nature, a traveler named Ptitsyn has returned from that country with a collection of medical books and drugs illustrative of the knowledge and the methods of practice in Thibet. Mr. Ptitsyn remarks that he has found over one hundred diseases described in the Buddhist literature, and of these a mythical origin is ascribed to only two. Strictly medical subjects are not studied until the fifth year of the course, the first four years being devoted to the study of the languages and theology. The eighth year is devoted to astrology, and philosophy is studied in the last two years.

**AMERICAN MEDICAL ASSOCIATION.**—Dr. Charles A. L. Reed, of Cincinnati, has indicated his intention to introduce before the American Medical Association at Washington resolutions to the following effect, viz:

1. That the American Medical Association extend an invitation to the medical profession of the republics and colonies of the Western Continent to assemble in this country in an International American Medical Congress.

2. That the Committee on Nominations be instructed to nominate one member from each State and Territory, and one each from the Army, Navy, and Marine Hospital Service to constitute a committee to which shall be referred time, place, and permanent organization of the proposed Congress.

**FOREIGN MEDICAL DIPLOMAS IN ILLINOIS.**—The Illinois State Board of Health has decided that hereafter it will recognize no foreign diploma unless such diploma confer the right to practice medicine in the country in which it was granted. This rule applies to Austrian, German, Russian, and Swiss diplomas, unless the holders have passed the State examination which entitles them to practice in those countries. It applies also to Canadian diplomas, unless the holder be a licentiate of the Colleges of Physicians and Surgeons of Ontario and Quebec.

**ACETANILID FOR CHANCER AND CHANCROID.** The *Journal de Médecine*, January 25, 1891, states that Basilevitch reports in *Nouveau Remèdes*, November, 1890, that cicatrization took place in a short time as a result of sprinkling acetanilid on the surface of the ulcers in one case of chancre in a woman and in two cases of chancroid in men.

In these cases acetanilid has the advantage over iodoform of being inodorous, and that large doses do not give rise to toxic manifestations. It is also less expensive than iodoform—an important consideration, especially in dispensary practice.

**AMERICAN MEDICAL COLLEGE ASSOCIATION.** The next meeting of the American Medical College Association will convene at the Arlington Hotel, Washington, D. C., at 8 o'clock P. M., May 4, 1891. The indications point to a very interesting session and a representation from a large majority of the colleges of the United States. The special committee on permanent organization is at work, and will be ready to report at this meeting.

**MIGRAINE.**—The following powder is recommended in *La Méd. Moderne* for migraine:

Citrate of caffeine.....	1½ gr.
Phenacetin.....	2 grs.
Sugar of milk.....	4 grs. M.

To be repeated, if necessary, in two hours.

**ERGOT IN CATARRHAL PNEUMONIA.**—In a case of catarrhal pneumonia in an elderly woman, wine of ergot was given in dram doses every four hours. The threatening symptoms subsided quickly, and recovery ensued.—*Times and Register*.

### Army and Navy Medical Intelligence.

**OFFICIAL LIST OF CHANGES** in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 29, 1891, to April 4, 1891:

War Department, Washington, April 4, 1891.

By direction of the President the following named officers are detailed for duty under the Intercontinental Railway Commission, appointed under a provision in the act of Congress approved July 14, 1890, for the purpose of making "a preliminary survey for information in respect of a continental railway recommended by the International American Confer-

ence," and they will report in person to the commission in this city accordingly: *Capt. Edgar T. Steerer*, 34 Cav'y, *First Lieut. Stephen M. Foote*, 4th Art'y, *First Lieut. Leonard W. F. Keenan*, 6th Cav'y, *First Lieut. Andrew S. Roach*, 9th Inf., *Second Lieut. Samuel Rice*, 4th Cav'y, *Second Lieut. Charles A. Heald*, 3d Cav'y. *Capt. William C. Sargent*, assistant surgeon, U. S. Army, for duty as medical officer of the party to which he may be attached. (Par. 3, S. O. 73, Hdqrs. of the Army, A. G. O., Washington, April 1, 1891.)

*Major David L. Huntington*, surgeon, on being relieved by *Capt. Henry G. Burton*, assistant surgeon, from duty at San Diego Barracks, California, will report in person to the commanding officer St. Francis Barracks, St. Augustine, Florida, for duty at that post, reporting by letter to the commanding General Division of the Atlantic. (Par. 5, S. O. 71, Hdqrs. of the Army, A. G. O., March 30, 1891.)

*Capt. Henry G. Burton*, assistant surgeon, now at San Diego, Cal., on sick leave of absence, is relieved from further duty at Vancouver Barracks, Washington, and will report in person to the commanding officer San Diego Barracks, California, for duty at that post, relieving *Major David L. Huntington*, surgeon, and reporting by letter to the commanding General Department of Arizona. (Par. 5, S. O. 71, Hdqrs. of the Army, A. G. O., March 30, 1891.)

By direction of the acting Secretary of War *Major Joseph B. Friend*, surgeon, is relieved from duty at Fort Lowell, Arizona, to take effect upon the withdrawal of the troops from that post, and will report in person to the commanding officer Alcantaz Island, Cal., for duty at that station, reporting by letter to the commanding General Department of California. (Par. 5, S. O. 70, Hdqrs. of the Army, A. G. O., Washington, March 28, 1891.)

The leave of absence for seven days granted *Capt. J. Van R. H. H.*, assistant surgeon, in Order No. 61, s. o., Fort Riley, Kansas, is extended twenty-three days. (Par. 3, S. O. 36, Department of the Missouri, March 27, 1891.)

### SPECIAL NOTICES.

V. R. PERKINS, M. D., Mercer, Md., says: I have tried your *CHLERINA* to perfection, and find it one of the best articles I have ever used in my practice as a nerve tonic. I have used it in a very large number of cases of nervous headache, neuralgia, and in one case of paralysis where all other nerve tonics failed; also in hysteria I often use it with success, and also in all languid and debilitated conditions of the system. It works like a charm in dissipations of all sorts, and some of the power arising from venereal diseases. Really I can not do without it in my extensive practice. I have used it in ten cases of dyspepsia without fail. It also has no equal on persons who lead a solitary life. It is perfectly safe to give to the oldest person, however weak, or the smallest child.

PEPSIN is undoubtedly one of the most valuable digestive agents of our *Materia Medica*, provided a good article is used. ROBINSON'S LIME JUICE and PEPsin (see advertisement) we can recommend as such.

The fact that the manufacturers of this palatable preparation use the purest and best Pepsin on the American market, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.  
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LOUISVILLE, KY., APRIL 25, 1891.

No. 9.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### LUPUS VULGARIS.\*

BY W. L. RODMAN, A M., M.D.

*Demonstrator of Surgery, University of Louisville.*

In this short paper I shall have reference only to lupus vulgaris or lupus exedens, and little to it beyond its differential diagnosis from other surgical affections of the skin. At the present time this would seem of importance.

Anatomically, lupus consists of small multiple papules of a brownish red color, situated in the deeper layers of the true skin. They vary in size from less than a pinhead to a small bean. At first softer than the surrounding tissue, and separate one from the others, the papules become firmer, and manifest a tendency to coalesce until nodules of greater or less size are formed. These in time are not only visible to the naked eye, but can be easily felt by lightly passing the finger over the surface.

The skin of the face is particularly obnoxious to lupus, it showing itself in this locality in a vast majority of instances. Its favorite site is on the tip of the nose or its alæ, the inner angle of the eye, and the cheeks. It may occur anywhere upon the skin of the body. It may also appear primarily in mucous membranes or submucous tissue. It frequently extends from skin to mucous membrane, but the order of march may be reversed.

Microscopically, lupus nodules consist of numerous very small epithelioid cells, an intercellular substance, and a few giant cells.

The difference between lupus and a tubercular nodule in the lung consists in the former's greater vascularity and diminished liability to undergo caseation.

Notwithstanding the opposition of Kaposi and others, lupus has, since the demonstrations of Koch in 1884, been accepted as a tubercular disease, and in the lesions of lupus (usually the giant cells) the tubercular bacillus is found. The bacilli are few in number, and at times as many as twenty or more sections are necessary before one bacillus is seen under the microscope.

After the formation of nodules the disease either pursues one of two courses. The nodules may undergo retrogressive change, in this way becoming smaller and passing away. In such cases the skin of the affected area becomes whitish, depressed in the center, and in most respects resembling cicatricial tissue. This course is decidedly the exception and not the rule in lupus vulgaris, for the one tendency of this disease is to eventuate in ulceration. Its course is essentially chronic. The affection begins, as a very general rule, under twenty years of age, and some authors would draw the lines more sharply, limiting the beginning of the disease almost entirely to the time of life prior to puberty.

Beginning as it does in early life, and selecting by preference impubic girls with fair skin, light hair, and blue eyes—in a word, strumous subjects—it lasts oftentimes until middle age, during its life making many attempts at repair and having as many relapses.

**Diagnosis.** Ordinarily the diagnosis of lupus is sufficiently easy. The diseases with which it may be confounded, named in order of liability, are syphilis, epithelioma, lupus erythematosus, and acne rosacea.

**Syphilis.** Its occurrence in impubic subjects,

\*Read before the Medico-Chirurgical Society, February, 1891.

its situation upon the face, as on the nose, eyelids, and cheeks, its notably chronic course, its characteristic small brown-red papules, its association with scrofulous subjects, and by preference females who will usually be above suspicion, distinguish lupus from other affections in a majority of instances.

Still there are cases occurring in young men who may be equally liable to both syphilis and lupus, when the most skilled diagnostician will be baffled. Upon close examination there are points of difference. In syphilitic ulceration about the nose, the favorite site of lupus, the ulcerative action extends from mucous membrane to skin, in lupus from skin to mucous membrane. The tubercles of syphilis are larger, copper-colored, and harder than those of lupus, and do not reappear in the cicatrix, as is the case in that disease. Syphilis is comparatively acute in its course, lupus very chronic. The syphilitic ulcer secretes copiously, and is covered by thick, hard, greenish, or black crusts. Lupus furnishes a scanty secretion, sanious in character, and is covered with thin, reddish brown scabs. The ulcer of syphilis is deep, with everted edges, giving a scooped-out appearance; that of lupus superficial, with unraised edges.

The scar of lupus is hard, irregular, yellowish, and disfigures greatly; that of syphilis is soft, regular, and but little disfiguring. Syphilis destroys every thing in its way; bone stops the march of lupus. When the tubercle bacillus can be found in lupus it is of course diagnostic.

*Epithelioma.* There are few instances, I take it, where lupus will be mistaken for epithelioma. The former is pre-eminently an affection of youth; the latter is as distinctively obnoxious to advancing life. One rarely occurs after thirty, the other rarely before forty-five. Lupus is somewhat more common in women than men; epithelioma is, according to my experience, vastly more common about the face of men than women, epithelioma of the lip, for instance, being seventeen times as common in men as it is in women. Epithelioma is painful; lupus is painless. Epithelioma causes enlargement of lymphatic glands; lupus does not. The edges of an epithelioma are hard, pale,

elevated above the surrounding structures. The edges are on a level with the rest of the sore, of natural color, and as soft as the surrounding tissues in lupus. Lastly, epithelioma starts from one point, lupus from several, lupus healing spontaneously at one point, breaking down at others. Epithelioma constantly enlarges, healing only as the result of treatment.

*Lupus Erythematosus.* This form of lupus differs from lupus vulgaris by its infrequent occurrence before adult life. In it there are circumscribed patches of discoloration, usually pink or violaceous, covered with thin adherent scales. There are no papules, nodules, or ulcerations. Sebaceous glands are involved in lupus erythematosus, not in lupus vulgaris. Lupus vulgaris is deeper than lupus erythematosus.

*Acne.* The appearance of acne at puberty, the congestion about its papules, pustules, comedones, etc., are sufficiently characteristic.

The use of Koch's lymph as a diagnostic in any of these skin troubles can not be too pointedly condemned. The diagnosis can usually be made without difficulty, and the use of so powerful an agent as the lymph is wholly unjustifiable. Whatever future the lymph may have as a therapeutic measure—and I expect little from it—I am satisfied that it will not be used by careful and conscientious men for its diagnostic value.

*Rodent Ulcer.* I have said nothing of rodent ulcer and its differential diagnosis from lupus. Every thing that was said of epithelioma holds good here, for so-called rodent ulcer is nothing more nor less clinically and pathologically than a squamous epithelioma, pure and simple. It would be better if the name were dropped entirely from medical literature. It is misleading, and is apt to make one forget or lose sight of its true pathology.

*Treatment.* Even before the discovery of Koch lupus was treated successfully with anti-tubercular remedies. One of its names, "*Noli me tangere*," indicates that the constitutional was considered as more important than the local treatment. Cod-liver oil has long been considered as the best internal remedy, the sheet anchor. Important as we recognize the constitutional treatment to be, it is certainly inferior in every way to the local. Now, instead of



"Do not touch me," it should be "Cut, scrape, or burn me out."

The removal must be complete. If not, a further source of irritation is added, and it becomes not unlike a malignant growth which has been but imperfectly removed, growing more rapidly than it had done hitherto. Therefore the knife, when it can be used so as to cut wide of the disease, is best. If any doubt remains as to the thoroughness of removal the action of a caustic should be supplemented.

Scraping should always be supplemented by a caustic. Of caustics the actual and galvano-cautery, sulphuric acid paste, nitric acid, chloride of zinc are the best. Arsenic should not be used, as it certainly is no better, if so good, as other things, and causes great pain, lasting many hours.

Pyrogallie acid is the favorite of some, iodoform of others. At the same time that local measures are used so energetically cod-liver oil is given internally, and the general treatment is as constructive as the local is destructive.

LOUISVILLE.

### TESTICLE FLUID AND ITS EFFECT IN THE TREATMENT OF DIFFERENT DISEASES.\*

BY DR. BROWN-SÉQUARD.

Since I communicated to the Society of Biology a year ago the results which I obtained from the subcutaneous injection of testicle fluid, I have been the object of attacks and jibes not only on the part of the secular press, to which I am indifferent, but also from certain scientific journals, which in my opinion should have been able to discuss more seriously researches which had for their object the elucidation of an important biological problem, I have continued my experiments, and others have followed in my track, and I am now going to give a *resumé* of the results obtained. I will recall in a few words that which struck me especially in my first experience with the injection of the testicle fluid, namely, the regulation of defecation, the increase in the force of the stream of urine, the greater muscular force, and especially a facility in the performance of intellectual work

without fatigue, which I had not experienced in several years. In a word, every kind of cerebral and medullary activity was singularly increased. This is, I repeated, a summary of my first communication. I said nothing more. You know of the excessive enthusiasm which these conclusions, more or less well understood, produced among valetudinarians of all kinds.

I had made a resolution, which I have never transgressed, to abstain from personally applying my experiments to patients. It was not without trouble that I did this, for I was compelled to flee from the swarm of solicitations and solicitors, who took my lodging by assault. I fled into England to a perfectly obscure place, where I was able to live in peace. During this period, which lasted three months, I made no further injections on myself, and was in position to analyze the further progress of the benefits which I had derived from my first experiments.

During the first six weeks that followed my injection it did not appear to me as if the slightest diminution in my rejuvenation took place, but at the end of that time its good effects grew less. Capacity for work was the first to diminish, then the muscular force, the strength of the stream of urine, and the intestinal functions became, little by little, as they had been before the injections. Meanwhile I made no new ones, and I had no intention of making any, when, attacked by a violent cough, I had to go to Nice, where I passed the winter. But my feebleness increased under the influence of my sickness, and I resolved to again use a means which had already served me so well, namely, the testicular fluid.

Here a complication presented itself. I did not have the means about me of rendering the fluid aseptic, a point which I had observed carefully in my previous injections. Under these circumstances I bethought myself of another mode of using the fluid, which would avoid the dangers likely to arise from the subcutaneous injections of a fluid not rigorously and certainly aseptic, namely, its injection per rectum.

I have been able to convince myself that, thanks to this procedure, one can obtain results as complete, as satisfactory, as durable as with

\*Translated from the Journal de Medecine de Paris by I. N. Bloom, A.B., M.D., Dermatologist Louisville City Hospital, etc. Read before Louisville Clinical Society, April 14, 1891.

the hypodermic injections. The only accident, which happens sometimes, is a slight local irritation when the fluid injected is too concentrated. It is easy to avoid this, of course, by a greater dilution of the fluid.

It is necessary, to be sure, to apply stronger quantities of the testicular fluid than under the skin, in order to obtain an identical effect; but, as I have already said, the rectal injections being without danger, it is possible to use larger quantities of testicle and to renew the injections more often. I have injected each time the liquid from the trituration of two (goat cobage) goat testicles diluted in 50 cubic centimeters of water. With equal propriety the testicles of other animals can be used, as rabbits, dogs, sheep, calves, always regulating the quantity of water by the size of the triturated testicle. The effect of these rectal injections upon me were exactly the same as those which I had obtained with the subcutaneous injections. It would be superfluous to enumerate them again. I will only add that I know that in other cases the results of the rectal injections have been equally successful.

So much for myself. Let us see now what my imitators have done and what their results have been. As it was easy to foresee, soon after the publication of my researches all the debilitated, all the incurables, or those reputed to be such, demanded the new method.

Certain physicians, the adverturous ones, to say nothing more of them, made use of the testicular fluid. I do not keep track of the results they have published. Others, men of reputation, savants well known, likewise had recourse to it. Of what these latter have seen I wish to speak to you.

It may be said that injections of testicle fluid have been made everywhere to some extent, and that the facts published are sufficiently numerous to deduce a conclusion from them. I will not enter into detail upon the different diseases to which my method has been applied. I limit myself to citing some cases which I believe to be conclusive, as much on account of the rigorous effects observed as on account of the undoubted standing and conceded knowledge of the investigators.

In paludal cachexia the injection of the tes-

ticular fluid has produced the best effect. In this connection I ought to say a few words of a case in which the results were, in a certain way, marvelous in spite of the imprudence of the physician. A man in the last degree of paludal cachexia, confined to his bed in a state of feebleness which did not permit of his moving himself, was injected subcutaneously with a trituration of a testicle of a sheep dead for several hours, and that too at a temperature of 88° F. The patient was lucky enough to suffer no other ill than a simple local abscess. But the general results were most remarkable. On the very next day the patient got up, and convalescence began. Other injections made under more favorable conditions completed the cure, which has continued to this day.

In certain cases of locomotor ataxia the amelioration has been remarkable. In others the injections have completely failed. Good effects have likewise been obtained in the treatment of some hemiplegias following cerebral lesions.

In leprosy, M. Suzor, in Mauritius (Ile Maurice), and I myself on a patient of M. Frémy, whom I saw at Nice, have obtained very remarkable improvement. In M. Frémy's case I used rectal injections.

I will add that in other affections, as various forms of dyspepsia and certain cases of incontinence of urine, the favorable results have been evident. Apropos of incontinence of urine I will cite a case observed by M. D'Arsonval:

A French savant, one of the most remarkable of men, had been obliged to suspend his work on account of two affections from which he suffered for a long time. He suffered from incontinence of urine, and he was frequently seized with violent rigors from no appreciable cause. In this condition he resolved to seek aid from the testicle fluid. The results were excellent. After the first injection the rigors disappeared, and soon after the incontinence of urine ceased. In short, the amelioration was so great that the gentleman could resume his occupation and edit a report on one of the sections of the Universal Exposition, and at the present time is on a tour of inspection.

In anemia from whatever cause, and in particular in anemia following hemorrhage, the testicular liquid works wonders. The follow-



ing is a case in which the injections have been made in a manner which I can not help reproaching, but which I have the right to report in confirmation of the remarkable efficacy, as shown by the brilliant results.

A physician whose wife was exhausted from metrorrhagia proceeded as follows: Trusting in the value of the injections of testicle fluid, he had connection with his wife and collected the semen resulting from his ejaculations in a (baudruche) condom. Then he injected under the skin of the patient a cubic centimeter of the fluid. Improvement was most rapid. The metrorrhagia recurred several times, and the same treatment applied each time produced the same results. Although this observation is conclusive, although it appears to establish that the semen gives the same results as the testicular fluid obtained by trituration, I repeat I would never advise that it be injected under the skin, from fear of septic accidents which such injections can provoke.

Such are, in short, the principal results obtained in a year. All the experiments were made on the sick. That is the way to appreciate the real value of the method. I asked, and still ask that in order to judge of the physiological value of these injections, they should be made upon old people debilitated by age, but attacked by some malady. In this connection I make a new appeal to the physicians who use injections of testicle fluid—a much greater number than one would think, for very few of them publish what they have observed.

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## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Dr. Koch, upon his late visit to England, at first sight had nothing in his looks, dress, or manners which revealed the professional savant. His features were regular, and the beard fashionably cut. His forehead is high, and the chin and lips were thought to belong much less to a man of the laboratory than to a man of action and will. If the nose did not carry glasses, one would doubt that one were in the presence of a Berlin professor. Dr. Koch is

only forty-two. His father was a mine manager, and the professor as a young man had a hard struggle in his profession. Having passed through the university, he finished at Hamburg, and then started as a provincial practitioner in Hanover. This did not suit him, however, and he made many changes before he landed in Berlin. It may not be generally remembered that his first distinction was won by the publication of the results of his quiet labor on the methods of the artificial dyeing of bacteria. By the general public his discovery could not be appreciated, but those who understood the value of these researches in the prosecution of the study of bacteria knew that with it a new era had dawned for science.

"Being dead, yet giveth" would be an appropriate description of the curious ceremony which has just taken place in the parish of St. Leonard, Shoreditch. In connection with the local charities under the provisions of the will of Mr. D. T. Gorsuch, surgeon, of Shoreditch, who died in 1820, the sum of £9 is distributed each year to eighteen poor persons who have been most regular in attending divine service at the parish church, and are the most deserving objects of charity. Under the will each dole of 10s. is placed upon the tombstone of the donor in the churchyard, and is picked up by the recipient. This ceremony has again just been carried out, when eighteen aged parishioners, one of whom had reached her eighty-seventh year, picked up their half-sovereigns from the grave. This quaint custom emphatically identifies the gift with the donor, and produces a sort of realistic effect, as if the charities were still received from the deceased man himself.

A writer in the London Quarterly has been explaining the hard fate of the English doctor. He says he has paid thousands of visits and gone hundreds of journeys without always getting bare thanks, much less remuneration. As to his unpaid prescriptions, they have reached a very high figure for some years past. No medical man can, according to the writer, escape a vast amount of practically unpaid work. If he is a hospital physician or surgeon, he does it without pretense of remuneration in the ordinary routine of his duties. Again, if he is a club or parish doctor he gets his full share of

it. The position is altogether an anomalous one. Half a successful doctor's income is sometimes drawn, it is said, from three or four families, especially in village and open country practice, though the case is not without its parallel in towns. "For three years and a half," he adds, "a single wealthy family whom we had to visit once or twice a day regularly all the time (and for eighteen months we did not once sleep away from home, so as always to be within immediate call) paid us several times as much as we got from all the rest of our work." Wealthy patients, however, are not apparently always agreeable people to deal with. Experienced practitioners assert that there is a peculiarly disagreeable type of patients which is greatly on the increase. They are found particularly among the *nouveaux riches*. These irritating invalids never respect or like any medical adviser, but regard him as a nuisance, begrudge his fees, make him understand his dependence on his employers, and whenever an opportunity occurs wantonly wound his feelings.

The Mayor of Derby has received a notification of Her Majesty's intention to lay the foundation stone of the Derbyshire Infirmary at Derby during the month of May. The royal journey to Balmoral will be interrupted for this purpose. The new building is to cost £74,000.

Lord Salisbury has received a letter from the Government of Denmark, accepting the invitation to be represented at the International Congress of Hygiene, to be held in London in August. The Danish Government have appointed as their representative Dr. I. Lehmann, Dean of the Royal Sanitary Council.

Mr. Bryant has recently given details of his experience of the use of peroxide of hydrogen. For the last three years he said he had used it largely in a ten volume solution as a local application. The first instance in which he applied it was one of suppuration about the scrotum, due to tubercular testis. He repeatedly injected a solution of five-volume strength into the sinuses. At first the discharge was of the consistency of yeast, but it soon became quite clear. After a few times the sinuses closed, and the patient got quite well. He has also found it of great benefit in large spinal abscesses. In such cases it quickly reduces the fluid which exudes from

these to a condition almost like that of serum, a result which he has never found to be brought about by any other antiseptic. He always finds the peroxide of especial value in the treatment of all suppurating track and abscess cavities. Dr. B. W. Richardson thinks there can be no harm in extending its application to cases of typhoid fever where there is persistent discharge and much flatulence. He has administered it by inhalation in angina, which he considers is perhaps a neuralgia rather than a spasm. Dr. Richardson has found it highly interesting to watch under the microscope the way in which the peroxide produces disintegration of pus corpuscles. Dr. Richardson's attention was first drawn to this solution when studying the changes of disease in what the late Dr. Moffat called "atmospheric ozone periods." He made peroxide, and found that the oxygen condensed in it colored Moffat's ozone test papers of potassium iodide and starch, a fact which showed that this oxygen was much more active than the oxygen of common air. It thus occurred to him that the peroxide would be of service as a medicine if its action on the animal body and on the tissues were well investigated. This was twenty-nine years ago, since when he has continued to work at this research. In the treatment of pulmonary phthisis he has found in it the greatest service. In some cases in which the solution has been borne in large doses during the early stages, it has led to such remarkable results toward recovery that at times he has felt inclined to declare in it the discovery of a specific. However, in the first stages of phthisis the doctor considers it of all medicinal remedies the most valuable, and in the later stages, when dyspnea is the distressing symptom, it is, especially in combination with ozonic ether, the remedy that gives most relief.

Mr. Hutchinson, of the London Hospital, recommends for the treatment of epistaxis the plunging of the feet and hands of the patients in water as hot as it can be borne. The most rebellious cases are said to yield to this method of treatment.

Dr. Moore says that alcoholic excess gives rise to a varicose state of the veins of the esophagus, and this state of things, even when the stomach and liver present no important lesions,



may give rise to fatal hematemesis. In a death from this cause the autopsy showed that the veins of the gastric, meseraic, and esophagian mucous membrane were all varicose.

The plan of dealing with the sewage of the town of Ealing, a place of 22,000 persons, appears up to the present to be thoroughly efficient. The sewage burns itself away in a "destructor," without any other additional fuel, the noxious fumes being afterward consumed in a "cremator" at an expenditure of £2 10s. weekly for coke braize. The method is found to be a cheap and efficient means of sewage disposal, which in its action gives forth a great supply of heat, which is used for working engines for pumping and other purposes.

The directors of the Royal Edinburgh Hospital for Sick Children have determined to build a new hospital with all modern improvements on a site adjoining the Royal Infirmary. It is felt that the new erection should be capable of receiving two hundred patients. This will be a great addition to the Edinburgh Medical School. The style will be the same as the Royal Infirmary, and will consist of two pavilions, each containing three wards, with a main building behind for administrative purposes.

LONDON, April, 1891.

## Abstracts and Selections.

**THE RECIPROCAL EFFECTS OF PREGNANCY AND PARTURITION UPON THE OPERATION OF SHORTENING THE ROUND LIGAMENTS OF THE UTERUS.**—It is assumed by many that during pregnancy the round ligaments stretch in proportion to the ascent of the pregnant uterus, and that either pregnancy will be interfered with by the shortened ligaments, or if they stretch so as not to interfere with pregnancy, the woman will, after delivery, have her ligaments as long as ever, and that consequently the displacement will recur.

In these assumptions there are several probable fallacies. It is not yet proved that the round ligaments stretch to any large extent during pregnancy. In the unimpregnated uterus these ligaments run from the internal abdominal ring backward and inward and downward into the pelvic cavity. Without being stretched at all these ligaments will allow the uterus to be raised in the cadaver a considera-

ble extent into the abdominal cavity, provided all the other attachments of the uterus are cut through. The uterus and two round ligaments might be compared to the handle of a bucket that drops into the pelvis in the unimpregnated state, and rises into the abdomen during the impregnated condition.

The normal length would not, however, allow the impregnated uterus to rise into the abdomen as high as it usually does were the unshortened and unstretched round ligaments to maintain the relative uterine attachments at the end of pregnancy that they do in the unimpregnated state, much less would the shortened ligaments allow of such elevation without considerable stretching. Another question must now be dealt with, and that is the way in which the uterus enlarges during pregnancy. We generally consider the enlargement as taking place equally in all directions, but this is probably rarely the case. I first noticed this in my studies in the *post-mortem* room, where in an acutely retroflexed uterus, found accidentally at a necropsy, the fundus was extremely developed, and the round ligaments attached so far forward that they had practically no control over the retroflexed part. (Hence arose the necessity for the stem pessary in such cases, after operation, until complete involution of the fundus has taken place.) In the few examples of impregnated uteri that I have seen *post-mortem* the same phenomena occurred to a variable extent. In the case of a ruptured uterus, removed by me lately from the living, the large fundus uteri appeared high and clear above the appendages, all of which seemed to have their attachments low down on the body of the uterus. The uterus, therefore, in my opinion, grows away from the round ligaments and in the direction of least resistance.

In connection with this question I have looked up some of the recent works on obstetrics. In the American System of Gynecology and Obstetrics, Dr. W. W. Jaggard says: "The round ligaments grow in length to a degree in correspondence with the ascent of the uterus, and become fourfold thicker. The increase in volume is due chiefly to hypertrophic and hyperplastic changes in the non-striated muscular elements of the upper third, and in the voluntary muscular fibers derived from the deep abdominal muscles for the lower two thirds. On account of the relatively greater development of the posterior uterine wall the origin of these ligaments is apparently moved forward to a point at the junction of the anterior fifth with the posterior four fifths of the antero-posterior diameter. Their course at term is from the navel obliquely downward and outward to the inguinal ring. Owing to the axial rotation of the uterus the left ligament is

especially prominent. . . . At term the tubes seem to originate no longer in the angles of the uterus, but correspond to the middle third of the lateral surfaces."

Further on, at page 462, Dr. Jaggard refers to the facility with which the uterine cavity will increase at the expense of whatever part of the uterine wall offers the least resistance. Writing of spontaneous rectification in cases of retroflexion of the gravid uterus, the following words occur: "In certain cases the process of spontaneous rectification is extraordinarily protracted. The anterior uterine wall grows upward into the pelvis major until larger and larger portions of the uterus and fetus are contained within the abdominal cavity."

In other words, the broad ligaments, round ligaments, adhesions, etc., are always partially left behind by the expanding uterus, and can be left still further behind should necessity arise through special shortness of the ligaments, strong adhesions, etc. *Post-partum* involution of the uterus tends to restore the position of parts to that which existed before pregnancy.

Hence I hold, theoretically, that in pregnancy the shortened round ligaments are not much strained because: (1) The distance from the internal ring to the site of their attachment to the uterus is probably not greater than in the pregnant and unimpregnated uterus. (2) That any strain during pregnancy upon the shortened ligaments does not so much produce stretching of these ligaments as development of the uterine cavity in a direction that does not increase the strain, and consequently the attachment of the ligaments apparently to a part of the body of the uterus much nearer the cervix than usually occurs. (3) That any stretching of the ligaments that may occur is probably rectified by *post-partum* shortening, and that both uterus and ligaments reassume, if involution has been natural and complete, as nearly as possible the condition that existed before pregnancy took place.

Such are the theoretical explanations of the undoubted fact that pregnancy and parturition are not necessarily or hardly ever interfered with by the operation of shortening the round ligaments.

At first the operation was performed on elderly women, or on those not likely, for various reasons that need not be more definitely stated, to have children. Very early in the operative history of my treatment of these cases pregnancy occurred, and resolved my own doubts upon the matter.

CASE 1. Mrs. B., aged twenty-four. Retroversion after the birth of a child three years previously; uterine troubles, cessation of menses a year ago; epilepsy, dysmenorrhea, etc.

This patient was admitted into hospital to be treated for a severe burn sustained during a fit. The epilepsy occurred in connection with the menstrual periods, hence a vaginal examination and the discovery of the displacement. The round ligaments were shortened on March 16, 1881, and the fits soon after ceased. During the summer of 1882 she became pregnant, and was delivered in the early part of 1883 of a child. She was attended by a midwife, and nothing special was observed either in the pregnancy or parturition by the mother or the midwife. I was able to exhibit this patient to members of the British Medical Association in 1883, where several gynecologists verified my statement that the uterus was in excellent position. Since that time another child has been born, and with the same immunity from displacement.

CASE 2. Mrs. G., aged thirty-eight, consulted me in the beginning of 1887 for pelvic pains, dragging, and general discomfort. She had been married seventeen years and had had no children; menstruation regular, but scanty and painful. Examination showed a retroflexion that could without much difficulty be reduced by the sound. After consultation with Dr. Grimsdale the operation of shortening the round ligaments was recommended. The operation was performed on January 7, 1887, and both it and the after-treatment was quite uneventful and successful from surgical, anatomical, or therapeutical points of view. She became pregnant in July, 1888, and her pregnancy was only marked by the fear that possessed her lest a miscarriage should take place. No symptoms of any such thing ever threatened, and her mind became much easier after the seventh month had passed. On August 8, 1889, I attended her in her confinement, and she was safely delivered of a girl. The pains were very sluggish in the second stage, and the short forceps were employed at the last. She recovered without any bad symptoms. The child is now quite strong and healthy, and the uterus is in excellent position. The operation in this case reached the highest point of success possible to it, and I think the satisfactory results may all be fairly ascribed to it.

CASE 3. Mrs. P., aged thirty-six, was recommended to me as a suitable case for my operation by Dr. Grimsdale. She suffered from the usual effects of an acute retroflexion, dragging pains, weariness, leucorrhœa, dysmenorrhea, and sterility for four years, her symptoms dating from the birth of a child at that time. The operation was performed on January 24, 1886. The operation proceeded satisfactorily, but convalescence was retarded by one of the buried stitches keeping up a small fistulous opening



that was only cured by removal of the stitch. On July 10, 1888, the ordinary medical attendant of the lady informed me that she was pregnant. He said: "She is very large, and complains, especially when tired, of sharp pains on each side where the incisions were made. . . . Her health is first-rate in every way, and the operation seems in her case to have been a complete success." On August 8th he wrote: "You will be glad to hear Mrs. P. is well over her trouble and has a very fine boy. She had a rather hard labor, and very considerable though not alarming hemorrhage afterward." The convalescence was watched with great care by Dr. Stoney, and was quite satisfactory. On July 10, 1889, I received a letter from the patient herself, in which she said, "I have not been so well for years."

CASE 4. Mrs. S., aged twenty-eight, suffered from the usual symptoms of retroflexion since the birth of her last child, three years ago. Her mind was much upset with the severity and worry of her pelvic troubles. She was operated upon on November 29, 1886, and delivered of a child on February 1, 1888. On January 4, 1888, she wrote: "I have been feeling far from well this few weeks, having the false labor pains. I thought I would send you a line to see if it is right for it to be so." No other symptom occurred, and a daughter was born on the date above mentioned. I have seen this lady several times since, and the womb remains in excellent position.

CASE 5. Mrs. D., aged thirty-two, had her last confinement on October, 1883. Since that time she had suffered from the following symptoms, described to me by Dr. Paton, who has attended her for years: "Nervous symptoms, flashing hot pains in the legs, weak, dull pain in back, general debility of a pronounced type. The burning pains in the legs were at times very severe, and she had frequent hysterical attacks." Some dysmenorrhea, leucorrheal discharge at times, and a distinct retroflexion complete the outlines of the picture. The operation was performed on February, 1888, and she was delivered of a son in April, 1889. Dr. Paton concludes his letter to me about her by saying, "Since the operation she has been much stronger and nearly free from nervous symptoms."

CASE 6. Mrs. R., aged twenty-eight, admitted into the Royal Southern Hospital on October 1, 1888. She is the mother of two children, the youngest four years of age. Since the birth of this child she has suffered more or less from backache, pelvic pain, and discharge from the uterus. At first she was treated for ulcerated womb, then a Hodge's pessary was worn for six months, and afterward a ring pes-

sary for another six months. Finally a lacerated cervix was operated on nine months ago without relief. Patient very thin, anxious, and nervous. She suffered from acute retroflexion, ulceration of os, with a prolapsed enlarged ovary. She was operated upon on October 1, 1888. The wound healed by the first intention, and the patient was discharged in six weeks, looking plump and bright. She came occasionally to show herself afterward, and at the beginning of the present year she came complaining of pains in her side. She was then far advanced in pregnancy, and at the end of March she was delivered of a daughter. I heard casually that she had had a miscarriage previously, caused by a doctor passing a sound to ascertain if the uterus was in position. If this was so, pregnancy must have occurred very soon after the operation in this case. I have not been able to verify the position of the uterus in this case.

CASE 7. Mrs. B., aged thirty-two, mother of one child, was admitted into the Royal Southern Hospital on September 11, 1888, suffering from prolapse, the cervix protruding from the vulva. Much dragging and some pain accompanied the displacement. The round ligaments were shortened, and the perineum restored on September 13, 1888. The after-course of the case was satisfactory, and the woman was confined on March 20, 1890. The labor proceeded satisfactorily, except that the perineum was very much lacerated and was not stitched up. A midwife only attended her. She came to me three months afterward complaining of dragging pain. Her perineum had almost disappeared. I inserted a small ring, and I heard the other day that she was quite comfortable.

These cases only include those that have casually come under my observation. I have heard of several others, but have been unable to follow them up.—*Dr. William Alexander, British Medical Journal.*

KOCH'S TREATMENT OF TUBERCULOSIS: GENERAL RESULTS.—At a recent meeting of the Lisbon Sociedade das Sciencias Medicas, Dr. Sousa Martins presented a report (*Correio Medico de Lisbon*, February 1, 1891) on the results so far obtained from Koch's treatment by the Committee appointed by the Society to investigate its action. The patients selected for the purpose were eleven in number (seven men and four women), and cases in which there were very extensive pulmonary lesions, or in which cerebral or abdominal complications were present were excluded. The treatment was begun in all the cases on December 12th. The amount given in the first injection was always 1 milligram, and the dose never exceeded 3 milligrams.

The pulse, respiration, urine, sputum, and body weight were carefully tested before, during, and after the treatment. The general result is summed up by Dr. Sousa Martins in the statement that "all the patients became worse under the treatment." One man with tubercle in both lungs, a cavity in the left, and hemoptysis, was injected five times, the mean temperature during reaction being from 38.5° to 39°C. Before the treatment, the number of bacilli in the sputum was estimated at 19 per linear centimeter; after the first injection the number rose to 420, subsequently falling to 4. The expectoration before the injection was made averaged 90 grams a day; after the treatment was commenced this amount rose to 140, falling afterward to 40. After the fifth injection, acute pleurisy, with considerable pyrexia, came on, and the treatment was discontinued. The patient died on December 21st, and at the *post-mortem* examination tubercles were found in the lungs, peritoneum, and mesenteric glands. In the upper part of the left lung the lesions were evidently old, but in its lower part the tuberculous process was of a more acutely inflammatory nature and of recent date, "perhaps posterior to the treatment."

Another man with anal fistula and old-standing tuberculous disease of the leg and knee, for which he had been operated on several times, received four injections. Reaction, both general and local, occurred in the usual way, but after the fourth injection the treatment had to be discontinued on account of two attacks of intestinal hemorrhage, which Sousa Martins suspected to be attributable "to the development of a new tuberculous focus, or to the reawakening of a latent one." In a man with a cavity in the right lung, the local symptoms and general condition became so much aggravated that after the third injection he declined further treatment, and left the hospital. In a negro with cavities in both apices, tuberculosis of the skin and caries of the sternum, after the fifth injection there was slight febrile reaction. The injections caused "insignificant improvement" in the bone disease, but produced no effect whatever on the pulmonary lesions. The treatment was discontinued because it caused pain in the abdomen, and hemorrhage from the bowel was apprehended. Another case was that of a man of alcoholic antecedents, with diminished resonance over a considerable part of the chest. He had spat blood from 1862 to 1869, and his expectoration before treatment was begun was "bloody, without bacilli." After five injections there was some improvement in the pulmonary symptoms, and the man looked better, but he had lost 3 kilograms in weight. In a man with enlarged submaxillary glands after

four injections not the slightest local reaction was obtained, though there was some rise of temperature. In the case of a drinker with not very extensive tuberculosis of one lung and hemoptysis, the second injection was followed by intense headache, trembling of the limbs, and amblyopia with irregularity and complete paralysis of the pupils. There was also some inflammation of the affected lung. In the case of two women with lupus the injections (three in number) were followed by the familiar results, "granulations of a healthy kind" being left after the separation of the scabs. In another woman with tuberculosis of the skin, palatine arch, pharynx, and lung, no reaction, general or local, followed the injections. In a woman suffering from tubercular leprosy, to whom four injections were given, general reaction occurred, but not the slightest local effect could be seen.—*British Medical Journal*.

ENLARGEMENT OF THE SPLEEN IN INFECTIOUS DISEASES.—An interesting series of researches have been carried out by Martinetti and Barbacci (*Marguer*, September, 1890) with reference to the enlargement of the spleen which frequently occurs during the course of the acute infectious diseases. Twelve guinea-pigs and six rabbits were inoculated with anthrax. In half the number of the animals the spleen had been extirpated before inoculation. The absence of the spleen seemed to have no effect on the course of the disease. The temperature was taken in eleven of the cases, and exhibited at first a slight rise, but at a certain stage of the disease the temperature fell suddenly, this corresponding with the appearance of bacilli in the blood and a considerable decrease of the red blood corpuscles. This was accompanied by an increase of white cells, most marked in those animals in which the spleen had been removed. The changes which occurred in the spleen were noted in those animals which had not been previously operated on, and also in thirty-six white mice. The alteration was not apparent until the bacilli appeared in the blood. The first changes observed were, that in various parts of the organ, and especially around the Malpighian corpuscles, the cells became granular and their nuclei stained more deeply; the spaces between the cells became wider, and appeared to be filled with a homogeneous substance. In addition, yellow pigment and red blood cells were found in the interstices of the tissues. At this period, also, in the spleens of mice and in the parts not affected by the above changes large cells were seen with irregularly shaped nuclei, similar to those which occur in the marrow, spleen, and other organs during the embryonal state. An-



thrax bacilli were also demonstrated. In the further course of the disease the spleen substance became more and more infiltrated with blood, and the large cells just described underwent a regressive metamorphosis, so that finally there was an appearance as if gangrene had commenced. In contrast with the passive processes taking place in the pulp, more active changes were occurring in the Malpighian corpuscles, in spite of the almost complete absence of bacilli. The follicles increased in size, and there was rapid increase of nuclei. As regards the lymphatic glands, no difference was appreciable between the animals which had had the spleen removed and those which had not. Changes were first observed in the medullary substance, and these were principally disorders of circulation—hyperemia followed by stasis and thrombosis. In the cells rapid cell proliferation took place, but no bacilli could be demonstrated. In some of the guinea-pigs the bone marrow was examined. In those in which the spleen had been removed there was an increase of pigment, both free and in the cells. Giant cells were also more numerous. In all the animals there was an increase in number of the red and white blood cells, and larger cells of unknown nature were also noticed. In the giant cells, contrary to what has been stated by most observers, undoubted signs of karyokinesis were noticed. The large cells which were found in the spleen during the first stages of the disease, and in the bone marrow during the whole course of it, were considered by the authors of the paper to stand in some relation to the source of the red blood cells, and to be an effort on the part of the organism to make up the loss of these cells by fresh elements.—*London Lancet*.

**THE TREATMENT OF DIPHTHERIA.**—In a note upon the treatment of diphtheria, which appeared in the *British Medical Journal* of January 24th, Dr. Knapp considered that the success of his procedure depended upon the antiseptic properties of a mixture containing iron, soda, and iodine. Without wishing for one moment to doubt the accuracy of his conclusions, I would venture to suggest that the remarkable efficacy of the remedy was due rather to the iron which it contained than to its salicine or iodine components.

The perchloride of iron has always enjoyed a high reputation as an empiric remedy for diphtheria, and it is now several years since its introduction into the London Hospital in a modified form led to a very considerable reduction in the mortality attending the disease. In the method to which I allude, the mode of administration of the drug was modified in two

important particulars—not only was the dose augmented and repeated every hour, but at the same time a few grains of chlorate of potash were added to the solution, with the view of encouraging the formation of the strongly antiseptic gas (euchlorine), which would dissolve in the mixture and exert a local action upon the seat of the disease. The formula runs as follows: Ferri perchlor., 3 vj; pot. chlor., gr. xl; glycerini, 3 iv; aquæ, ad 3 viij. M.

Whether the supposititious chemical action really takes place or not is uncertain, but no one who has had occasion to use the prescription in cases of diphtheria will deny that its effect upon the course of the disease is extraordinary. The mixture is administered every hour, day and night, the patient allowing the medicine to remain for a few seconds in contact with the throat before swallowing it, and refraining from drinking any fluid for at least ten minutes after the dose has been taken. For the rest the treatment consists in the free exhibition of stimulants and of a highly nutritious diet. Sprays of sulphurous acid, quinine, antipyrin, and salicylate of soda appear to exert no influence whatever upon the course of the malady.

Under this system of treatment the course of events is fairly uniform; the membrane ceases to spread after the lapse of a few hours, and has usually disappeared by the end of the second day. When this result has been effected the medicine must be cautiously reduced in amount and in frequency of administration, but in no case should it be abruptly discontinued, since it has happened that in such cases the membrane has reappeared at the moment that the disease was supposed to have received its final dismissal.

I have before me the notes of twenty-two adult cases treated in this manner; of these, twenty recovered and two died; seven of the successful cases suffered from subsequent paralysis. I might also remark that in one case, where tracheotomy was performed on account of laryngeal implication, the patient's life was undoubtedly saved by the persevering and energetic action of the house-physician, Dr. Daniells, who himself hourly applied the mixture to the diseased mucous membrane.

Persons suffering from diphtheria appear to be exceedingly tolerant of iron, as in no case was colic or constipation complained of, and in only three instances did vomiting ensue at the commencement of the treatment. In cases of infants the remedy is practically useless, the cases generally dying of exhaustion before the medicine has had time to take effect.

From the numerous facts at our disposal there can be no doubt that the administration of certain preparations of iron in large and

repeated doses is capable of exerting a material influence upon the course of the disease; and it behooves us to determine by more extended trial the true value of its various antiseptic combinations in the treatment of so fatal a malady as diphtheria. — *W. Soltan Fenwick, M. D., British Medical Journal.*

**THE GERMICIDAL PROPERTIES OF BLOOD.**— A great deal of important information has lately been obtained on this subject, and Von Fodor, who has already contributed some useful papers, publishes in the *Centralblatt für Bakteriologie und Parasitenkunde*, vii, No. 24, some further experiments which he has made, especially directed to ascertain under what conditions the germicidal properties of the blood are at their highest, and in what way the composition of the blood affected these properties. The first series of researches had reference to the composition of the blood, and proved, in the first place, that arterial blood has a more destructive action on the bacteria than venous, and also that fresh blood has a more powerful action than that which has been shed for some time. Again, the germicidal power of the blood was weakened in an atmosphere consisting entirely of oxygen or carbolic acid. On the other hand, the removal of gases from the blood had no appreciable influence. The blood of rabbits which had been poisoned by carbolic acid gas was not fatal to the bacteria. As regards the influence of the movement of the blood (circulation), experiments were made by placing the blood of rabbits, which had already been inoculated, in small globes, some of which were kept in constant movement, and others quite stationary. No appreciable difference was observed. Some very interesting results were obtained in reference to the temperature of the blood. From these it would seem that the germicidal power of the blood increased with the rise of temperature, reaching its maximum at 38° to 40° C., and then again gradually diminishing. The author mentions an interesting fact, that is, that the individual predisposition of any animal to an infectious disease seemed to stand in direct relationship with the germicidal power of its blood. The second series of researches was directed to the influence of drugs on the power of the blood to destroy germs. Hydrochloric acid had no effect. After treatment by tartaric acid a marked decrease was noticed, and the same result was produced by quinine. Common salt and carbonate of ammonium caused a slight increase of the power, the phosphate of sodium a more marked effect, while the carbonates of sodium and potassium produced a very remarkable increase. From the experiments the author concluded that any

drugs which cause increased alkalinity of the blood considerably raised the resisting power of the organism against the inroad of bacteria. The third of this series of experiments corroborated this supposition. Of eight rabbits inoculated with anthrax all died, while of nineteen which had been previously injected with soda solution only three died, thus proving the efficacy of the alkalization of the organism. Of the remaining sixteen cases a few were affected at a later date, but the majority remained perfectly free from disease. — *London Lancet.*

**TUBERCLE BACILLI IN THE BLOOD.**— Mr. Gilbert Barling, M. B., F. R. C. S., and Dr. T. Stacey Wilson, M. B., C. M., R. C. P., send the following note from the Birmingham General Hospital with reference to the statement made by Dr. Liebman, of Trieste, that tubercle bacilli had been found in the blood of patients with tuberculosis who had been treated by Koch's remedy. If the observation be correct, either such patients should be the subject of general tuberculosis, or else immunity has been obtained by the injection of the fluid, or perhaps a third condition is possible; namely, that the bacilli in the blood are too degenerate either to cause harm or to multiply. Drs. Guttman, Ehrlich, and Ewald have already reported that numerous observations made on phthisical patients under their care have failed constantly to demonstrate the presence of tubercle bacilli in the blood. Our observations have been few in number, but having been made conjointly and with some persistence, we venture, in view of the importance of the matter, to make a preliminary statement. We have examined the blood of three cases of phthisis and one of lupus. In two of the cases of phthisis and in the lupus case the examination gave a negative result, and therefore calls for no further comment. The third phthisical patient was a girl, aged seventeen, with extensive tuberculosis of the upper lobe of the right lung and of the right tarsal joints, also of the left wrist, and to a slight extent of the larynx. Under treatment by injection the larynx improved and also the wrist, while the lung condition remained about the same; the foot, however, suppurated so much and became so painful that it was amputated, the injections being suspended for ten days. Toward the end of this time the lung showed signs of rapid breaking down. When the injections were resumed some blood was taken from the finger during the first reaction; four cover-glass preparations were made, and stained by the Ziehl-Neelsen method. In one of these we found two undoubted tubercle bacilli, but we could not identify any in the other preparations. At this time the sputa



contained an enormous number of tubercle bacilli, and it may be mentioned that a scraping of synovial membrane from the amputated foot also showed a large number of them. On two subsequent occasions cover-glass preparations from the blood of this patient were examined with a negative result, and on one of these occasions blood was taken for cultivation on serum, but it is yet too early for any naked-eye change to have made its appearance. It is worth mentioning in this connection that this patient's general condition, as well as that of the lung, has improved since the injections were recommenced.—*British Medical Journal*.

**THE COLD BATH TREATMENT IN TYPHOID FEVER.**—Mr. F. F. Hare, M. B., resident officer of Brisbane Hospital, Queensland, contributes to the Practitioner (March) a very well ordered study of the effects of cold baths in the treatment of typhoid fever. The number of cases dealt with is surprisingly large, and affords every opportunity for arriving at statistical results. Thus a contrast is made between the cases treated during the sixteen months, August 1, 1888, to December 31, 1889, on the "expectant plan," and those from January 1, 1887, to December 31, 1889, when the bath treatment was thoroughly carried out according to Brand's directions. The gross result was an improvement in mortality amounting nearly to 50 per cent. Thus, on the expectant plan there were treated 586 cases, deaths 85, mortality 14.50; under the bath treatment 1,173 cases, deaths 92, mortality 7.84. Dr. Hare points out certain fallacies which are likely to arise in every such inquiry, particularly those due to a too liberal extension of the term "typhoid," and those to the varying severity of the disease at different periods; and then discusses the special value of the treatment, the success of which is proportionate to its commencement early in the disease. He shows that the liability to intestinal perforation and hemorrhage is unaffected, so that no reduction in the general mortality below 5 per cent (the rate due to these accidents) can be expected. The greater liability of males to these complications gives a vastly better prognosis under the bath treatment to female cases; but at the same time he points out that in moderating the diarrhea and in sustaining the vital powers the patient is better enabled to resist the effects of hemorrhage and "other not necessarily fatal intestinal conditions." Lastly, he reaffirms the position assumed by the former advocates of the measure as to its chief effect in reducing mortality, for he says: "The vast bulk of the reduction in mortality is due to the prevention of those complications and modes of death

which, being more or less common to the febrile state, however induced, have been termed pyrexial. Thus (a) fatal pneumonia has been less than one fourth as frequent, this being chiefly due to the rarity of the bronchial form; (b) brain complications have been less fatal and brain symptoms (delirium, stupor, etc.) enormously reduced in frequency; while (c) it is no exaggeration to say that simple cardiac failure would have been practically expunged from the list had all the cases admitted come under treatment during the first week of the disease." *London Lancet*.

**AN APPLIANCE TO FACILITATE THE INSERTION OF THE SOFT RUBBER (NELATON'S) STOMACH-TUBE.**—Dr. Gustave Liebmann, attending Physician to Patients with Stomach Diseases, North End Dispensary, Boston, says, in the Boston Medical and Surgical Journal, March 5, 1891: In the every-day use of a stomach tube the soft elastic (Nelaton's) tube is by general agreement the one to be preferred. Although the hard gum tubes enter the pharynx and esophagus much more readily, they are at any rate relegated to the rarer cases of poisoning with suicidal intent, where, from obvious reasons, the application of a soft tube is not feasible. In all applications of a tube for diagnostic or therapeutic purposes we use the soft kind, as it is well-nigh impossible to do any mischief with them, and they "sit" much easier in the stomach, giving rise to less irritation or gagging than a hard tube. Still the introduction of a soft tube is at times, although generally not difficult, a source of great annoyance to both physician and patient. And why? Because for the passage of the instrument from the fauces to the beginning of the esophagus we have to depend on the intelligence and docility of the patient. He has to swallow the tube and work it through the pharynx, and only then are we enabled to push it down to the cardiac orifice. Should the patient from some cause (awkwardness, nervousness, and so on), fail to swallow, as it happens in some exceptional cases, then we are helpless and have to give up the job. Now to overcome this difficulty I have during the last three months used a simple appliance that served me exceedingly well.

Although I designed the stylet and had it made to suit my fancy, I must state that the conception of it I got from a lady patient returning from Prof. Leube, in Wurtzburg, who told me that the doctor used some sort of a staff to steady the tube. The stylet is made of rattan, is about thirty-four inches in length, to fit that of the ordinary Nelaton, and to project besides one and a half to two inches at the

proximal end, is well smoothed down, of the thickness of a No. 6-8 English catheter (according to the caliber of the tube), with one end curved like the beak of a metallic bougie, but of uniform thickness from one end to the other.

The curved end of the well-lubricated stylet is inserted and pushed forward through the tube until it arrives at the distal end of the latter, care being taken that no part of it protrudes through any one of the openings at the end of the tube. It is advisable to bend the tube and stylet still more into the requisite curve before inserting in the fauces. This done, the tube, with the stylet sticking out at the proximal end, is cautiously inserted—like any other hard-gum tube—into the fauces and pushed forward along the pharynx to a point corresponding with the lower border of the cricoid cartilage, or in other words, to the beginning of the esophagus, when the stylet is withdrawn and the tube slid down to the cardiac orifice without any further trouble. You see the soft tube is changed into a stiff one but for the short minute during which it has to pass the pharynx; we remove the stylet, and have to deal with a soft tube during the remainder of the whole procedure.

I would warn against allowing the stylet to remain within the tube below the mentioned limit, as, in the first place, we don't want to use a hard tube in the esophagus, and second, the withdrawal of the stylet under this condition would be almost impossible. At any rate our end in view—the overcoming of the difficulty to the passage of the Nekaton tube—is fully reached by using the stylet only as far as the pharynx extends.

I would claim, therefore, that the stylet fulfills all the requirements of the case, dispenses with the co-operation of the patient, and that there should never be any further failure, the patient being willing and there being no organic stricture present, in introducing a soft-rubber tube into the stomach.

**"ASTASIA-ABASIA" IN GRAVES' DISEASE.**—Dr. Eulenburg, of Berlin, discusses in a neurological journal the state described by P. Blocq as "astasia-abasia." The author points out, first of all, that no consensus of opinion exists between Blocq and others who have written on the subject as to the true meaning of this morbid condition. Some consider it to be a mere symptom of a hysterical nature, while Blocq himself looks upon it as an independent morbid condition due to spinal lesion; Binswanger connects the symptoms with hypochondria, while Eulenburg observed a case of astasia-abasia during the progress of Graves' disease

in an anemic girl of eighteen, which shows that, apart from hysteria, a morbid condition may exist, not only comprising the symptoms represented by Blocq's description, but completely agreeing with their course and the effect produced on them by treatment. The girl had been treated for four months, and the goitre had not only considerably decreased, but the exophthalmos had almost entirely disappeared; palpitation and pulse became less frequent, and her whole nutrition had also considerably increased, when suddenly both her legs seemed to become paralyzed. She thought she had caught cold in a draughty passage. No other symptoms supervened. On examining the patient as to her sensibility and power of walking, the author diagnosed astasia-abasia, with a kind of self-suggestion as cause, as the patient had been seized once during the early part of her treatment with a sudden fear and consequent inability to pass over bridges. Psychological treatment was consequently indicated. The author informed her that a very painful and powerful remedy alone could do her good, but that this would cure her with certainty in a very few days. He applied faradism for about ten minutes below the knee and on the leg and foot most energetically, with rubefacient and of course painful effect. He then recommended some indifferent liniment and proposed to repeat the application of the faradic brush on the next day. Improvement was observed the same day, and one repetition of the treatment entirely cured the astasia-abasia.—*London Lancet.*

**APIOLINE (PSEUDO-APIIC ALCOHOL).—A RELIABLE EMMENAGOQUE.**—The seeds of the *Apium Petroselinum* (N. O. Umbelliferae) have long been known to contain several well defined principles: notably, *apiol* a glucoside, *apiol* a camphor, besides an *essential oil*, composed of an oxidized crystallizable substance dissolved in a *terpine* having a powerful odor of the plant, a low specific gravity, and boiling point of 106°. Abundant observations establish the emmenagogue action of the plant: Bourchardat, Vallée, Marcotte, Fauconneau, Corlieu, Bouchut, and others are unanimous in this respect, and Sirey goes so far as to say that it is the best emmenagogue whose reputation is indisputably established.

To secure uniformity in therapeutical results, M. Chapoteaut adopted the following process to extract the active principle of the seeds of the plant: After complete exhaustion of the seeds with light petroleum ether, the resulting liquid leaves, on distillation, a semi-congealed residue of neutral substances, fatty acids, etc., which, when treated with alcohol, is partially



soluble. The alcoholic solution, on evaporation, leaves a product which, on addition of caustic soda, yields a thick, reddish liquid—a *pseudo-apiic alcohol*—boiling at 275° C. Sp. gr. 1.113. This is *apioline*, the true active principle of the seeds.

Physiological experiments on animals in the Faculty of Medicine (Paris) laboratories indicate that *apioline* has a special action on the circulatory system of the smooth muscular fibers of the uterus, producing vascular congestion and excitement with contraction. This has been followed up by successful clinical observations in severe cases of amenorrhea, dysmenorrhea, and other menstrual troubles. From this clinical evidence, it has been positively proved that *apioline* may be safely used to excite and regulate catamenia where the menses are wanting or scanty, and where they are irregular with colic and lateral cutting pains; besides the almost certain existence of pregnancy is indicated in doubtful cases when the flow is not promptly established after a few doses.

Rigaud and Chapoteaut, of Paris, prepare capsules of *apioline*, each containing twenty centigrams (about three minims). Dose should be one night and morning for several days preceding and a couple of days during the menstrual period. Repeat this the following month, after which it is claimed to be rarely necessary to renew treatment.

Dr. Westhauser reports, among other cases treated with *apioline*, one of fifteen years' standing of irregular and very painful menstruation. "At her last sickness the flow came on much freer than usual and was almost painless. My patient noticed that the flow kept up for three or four days continually, and not, as formerly, stopping on the second day and then returning in three or four days." Dr. Stillman tested the *apioline* capsules in three cases of amenorrhea "with uniformly gratifying results; one case had been particularly slow and obstinate." In a severe case of dysmenorrhea, Dr. Blair says, "The effect was grand, the patient, a girl of eighteen years, had the least pain and best showing which she ever experienced."—*Virginia Medical Monthly*.

**HYSTERIA AND ORGANIC DISEASE.**—As our knowledge of organic disease widens and deepens the number of cases relegated to the indefinite if convenient limbo of "hysteria" will no doubt become fewer and fewer. In a recent number of the *Charité Annalen* the details of a very instructive case in this relation are recorded. The patient was a woman of thirty-one, who, after an attack of typhus fever at the age of twenty-one, began to suffer from a

gradually increasing anesthesia, concentric contraction of visual fields, color blindness, and disturbance of special senses. The patellar reflexes were present. The manner of the patient was marked by apathy, and sleep was induced by merely closing her eyes. There was much emaciation, the apathy became more marked, and finally before death she was delirious, with hallucinations and delusions. The case was regarded clinically as one of hysteria, with subsequent mental disturbance, but at the necropsy an astonishing condition of things was found. There was tubercle in the lungs, the larynx, and the intestines, degeneration in the posterior columns of the cord, and myelitis in those columns in the cervical region. Such a condition with retained knee-jerks is certainly unusual. But there were also changes in Clark's column, a congenital fissure in the medulla oblongata, and degeneration in the nuclei of the cranial nerves, the peripheral nerves showing no change. That so many changes in the nervous system should be present without obtruding themselves in such a way as to make possible a diagnosis other than the unsatisfactory one of hysteria is certainly strange. The case is of great importance, as affording a warning that hysteria is not to be diagnosed without the utmost care in excluding every possible form of organic disease.—*Lancet*.

**SARCOMA OF THE UTERUS.**—M. Terrillon (*Gazette des Hôpitaux*, November 29, 1890) has collected fourteen cases of this disease; he classifies them as four of sarcoma of the endometrium, two of gigantic sarcoma of the fundus, three of pedunculated sarcoma, and four of cystic sarcoma. Histologically he divides them into sarcoma of the mucous membrane, interstitial and cystic sarcoma. In sarcoma of the mucous membrane the new growth may form a bud or may ulcerate. The cervix remains stationary in length, the uterine cavity elongates. These tumors most frequently develop in women between the ages of thirty and fifty; many of the patients hitherto observed were childless. The local disease makes rapid progress; general emaciation, however, appears to come on later than in cancer. The patients seldom live over two years. Death is usually due to pressure effects. The disease nearly always recurs after removal; this recurrence is often rapid, and ranges, according to existing records, from five months to two years. The recurrent growth usually forms on the stump of the uterus, less frequently in a part far from that organ. In one of M. Terrillon's cases it developed in the lung. The chief symptoms of sarcoma of the uterus is a constant bloody discharge with steady enlargement of the body of the uterus. Oper

ation is the only remedy. When a bud-like sarcomatous tumor develops on the endometrium, it may be treated by scraping with the curette, and by subsequent repeated cauterizations with chloride of zinc. M. Terrillon wisely cautions operators as to the use of such a remedy, and observes that the temperature often rises to 104° F. after the scraping and caustics. As he has never seen such a complication when the same remedy has been used for metritis, M. Terrillon suspects that some auto-infection or special form of septicemia occurs in these cases. — *British Medical Journal*.

**SYRINGOMYELIA.**—In a recent number of the *Progrès Médical* there is reproduced a lecture by Charcot on this obscure and interesting condition. This lecture, however, has more than a passing interest, for it directs the attention to a series of signs and symptoms not formerly described, so far as we are aware, in association with the condition known as syringomyelia. The patient who was the subject of the lecture was first seen in 1875. He was at this time twenty-five years of age, an officer, presenting weakness of the whole of the left side of the body. The leg was much weaker than the arm, there was marked rigidity, difficulty in directing the foot in a given direction, and a great tendency to inversion of the foot. The knee-jerk was exaggerated, and the whole condition, Charcot says, was suggestive of infantile hemiplegia, with a certain amount of athetosis. In the previous history of the patient there was nothing to throw any light on the present state. He had always been strong, and came of a healthy stock. He was very fond of horses, and had had several accidents in connection with them, but apparently nothing of any moment. He had first noticed slight weakness of the left side when he was of the age of ten, but this had not been marked; and although it had increased it was not sufficient to prevent him from serving with his regiment in the Franco-Prussian war. While on service, however, he had one day great weakness of the left side of the body, and although this passed off to a great extent in the course of the day the weakness had again increased until he came under observation in 1875. He was not seen again until last year, and during the fifteen years that had elapsed considerable changes had taken place. He now had a well established condition of left hemiplegia with rigidity and contracture, greater in the leg than in the arm, exaggerated reflexes, and naturally almost complete loss of power in both leg and arm. The limbs on the right side were quite normal. There was no muscular atrophy, but there was almost complete loss on

the left side of the sense of temperature, and much impaired sensibility to painful impressions. There was also a peculiar condition of the left hand. It was broad and clumsy looking, there was enlargement of the finger joints, and the hand, in short, closely resembled that of a patient suffering from acromegaly. There was also some trophic change in the cicatrices in the lumbar region where the cautery had been applied in 1884 or 1885, and it is noteworthy that this application had been unaccompanied by any thing more than very slight pain. It is evident that this case presents many points of difference from what is regarded as the type of syringomyelia. In the latter, while the impairment of temperature sensibility and of sensibility to pain are present, they are usually accompanied by muscular atrophy. In this case the absence of this cardinal sign is noteworthy, and so is the one-sidedness of the lesion. Of course there is no absolute proof that the diagnosis is correct, but if the further progress of the case should confirm it, a good deal of light will probably be thrown on the considerable class of cases of lateral sclerosis of slow and gradual onset; for the patient under consideration, when seen fifteen years ago, showed nothing more than well-marked symptoms of such a condition. As the changes in sensibility and in the trophic functions are, however, the only signs which are relied upon for the diagnosis, it is evident that in the present state of our knowledge of the tract by which such impressions are conveyed an absolute conclusion can scarcely be arrived at. — *London Lancet*.

**INFRA BRONCHIAL INJECTIONS IN PULMONARY PHTHISIS.**—Dr. Giulio Masini has made experiments (*Gazzetta degli Ospitali*, January 7, 1891) as to the possibility of injecting medicinal substances directly into the bronchi, and has satisfied himself that it can be done. He uses for the purpose the barrel of an ordinary syringe, to the distal end of which is fixed a catheter with the usual laryngeal curve, which can be pushed out or drawn in as may be required. The liquid used was a twenty-per cent solution of olive oil, filtered and sterilized, and creosote. This is injected into the trachea or into one or the other bronchus by passing the catheter through the glottis from the mouth. Auscultation by an assistant, while the liquid is being injected, enables the operator to know whether the medicament is reaching its destination. The experiments were made in Prof. Maragliano's clinic, at Genoa, on five men and one woman suffering from various degrees of pulmonary disease—from catarrhal bronchitis with doubtful signs of tuberculosis to the gravest form of



phthisis, with infiltration of both lungs, cavities, etc. In two of the cases in which on admission there were signs of disease at the apex, with night sweats and wasting, the effect of the treatment was very remarkable. After injections of the solution every day for a month (increasing gradually in amount from 1 to 4 cubic centimeters) the physical signs disappeared "completely" in one case, and "all but completely" in the other. Both of them gained considerably in weight. In one of the remaining cases the treatment had to be discontinued almost immediately, on account of the extreme sensibility of the larynx and the indocility of the patient. In the three others, daily injections (of 4, 5, 8, up to 10 cubic centimeters) were given during three months and a half; in two of them a "notable result" was obtained, the expectoration ceasing almost entirely, the diseased area in the lungs becoming much smaller and the patients gaining weight and feeling better. In the fourth case the disease remained stationary, but the daily amount of expectoration diminished by 80 grams, and there was a slight gain in weight. Dr. Masini thinks these results sufficiently encouraging to warrant further trial of the method.—*British Medical Journal*.

#### HEAT CENTERS IN THE NERVOUS SYSTEM.—

At a meeting of the Cambridge Philosophical Society, on Monday the 9th inst., Dr. J. G. Adami read a preliminary communication upon certain points in regard to the functions of the cerebral heat centers. After indicating how uncertain is our knowledge concerning not only the position and exact nature but also the very existence of definite cerebral heat-regulating or heat-producing centers, he described certain experiments made by him in M. Metschnikoff's laboratory at the Institute Pasteur, Paris, to determine whether substances inducing typical fever in the intact animal lead to any rise of temperature when injected into the animal deprived of its hemispheres. Employing for this purpose the hen, he found that for the first few days after the removal of the cerebrum, when evidently the shock caused to the system is still persisting, the temperature-regulating mechanism is thoroughly disorganized. Place the hen in a chamber warmed to 22° C. (71.8° F.) and the rectal temperature rapidly rises in the course of a few hours to, it may be, several degrees above the normal; remove it to a room at 16° to 18° C. (60–65° F.), and for some hours the temperature as rapidly falls, though there is a tendency for it to eventually rise again. No corresponding temperature changes, it is needless to say, occur in normal hens when exposed to such slight variations of

external warmth. Give the animal 15 ccm. (two drams) of cold water by the mouth, and the temperature as measured in the rectum falls through 1° F. or more in the course of forty minutes. Again, feeding with warmed egg—a rich proteid diet—induces a rapid rise of body temperature. The temperature being so liable to variation, it was difficult to determine the suitable moment at which to inject substances which, in the ordinary hen, cause a transient experimental fever—as, for example, sterilized cultures of the vibrio Metschnikovi. Yet Dr. Adami managed to gain clear indications that these substances, when injected under proper conditions into the hen deprived of its hemispheres, do lead to a marked rise of temperature—a rise of as much as 2° C. (3.6° F.) in the course of six hours, continuing afterward at a slower rate for some considerable period. Whether such rise is truly febrile or not (which can only be determined rightly by calorimetric observations), and whether it can be produced in fowls minus their hemispheres at a later period, when the system is in a more stable condition, are matters which have yet to be investigated, and which Dr. Adami hopes to determine in due time. In the discussion which followed Sir George Humphry, Prof. Roy, and Dr. Lea took part.—*London Lancet*.

KOCH'S TREATMENT IN LUPUS.—A summary of several papers published in Germany dealing with the question is published in the *Monatsschefe f. prakt. Derm.*, No. 2, 1891. Among them is one by Dr. Koehler, published in the *Deutsch. med. Wochenschr.*, 1890, No. 48. Dr. Koehler asks the question, What becomes of the dead tissue containing the living bacilli? He considers it possible that where the lupus is superficial the dead tissue containing the bacilli may be thrown to the surface of the body and a permanent cure take place. If the lupus is deeply situated, the cutis tissue prevents this throwing off of the dead tissue. Unless the cutis were to die throughout its whole thickness, there would be no elimination from without. Such total gangrene of the skin has not been observed by the author. After discussing various possibilities from a theoretical standpoint, he infers that in any deep-seated lupus we must interfere surgically in order to get rid of the necrosed tissue, and he believes that that ought to be done when the remedy in large doses produces neither general nor local reaction. He recommends the use of the sharp spoon, believing that even if all the lupus tissue is not removed by it, Nature will throw off the rest; in other cases the spoon or other surgical treatment may be used first and the remedy injected afterward. He refers to a case in

which the cartilage of the nose was affected with ulcerating lupus. After one injection the ulcerated parts healed, and they remained healed, while parts that were not ulcerated can not yet be considered as quite free from lupus. He further refers to a case which proves that in superficial lupus the injection alone can completely cure the disease. Where there were formerly numerous islands of lupus tissue in the skin, not only are there now present the excretory ducts of the glands, but even lanugo hairs. So far this is the most successful case reported. Macs (*ibid.*) reports on five cases of lupus, and calls special attention to the fact that in all these cases the local reaction preceded the general reaction by a quarter of an hour to an hour. He found no reaction in a case of acute pleurisy in which phthisis was suspected. There was no reaction in two cases of syphilis. In a case of tubercular leprosy, evidently the one reported by Arising, the febrile condition lasted four days, attended with diarrhea for two days, and there was no local reaction in the leprosy tubercles.—*British Medical Journal*.

**TREATMENT OF FISSURED NIPPLE AND ENGORGED MAMMARY GLAND.**—In the treatment of fissured nipple, when the cracks are at all extensive, the ordinary remedies recommended from time to time have been found more or less unsatisfactory. Painting with tincture of benzoin, for instance, while an excellent procedure for small superficial cracks of the nipple, is perfectly worthless in more advanced cases.

The writer has found in hospital and private practice that excellent results can be secured in bad cases by the application of an ointment made up of equal parts of castor oil and subnitrate of bismuth. This mixture makes a very smooth, soft ointment, which relieves the pain, and is an excellent protective to the part. Before application, the nipple and surrounding skin should be carefully cleansed and disinfected, and then the ointment should be smeared on plentifully. If it is necessary for the child to nurse from the affected nipple, it can be allowed to do so without the necessity of removing the ointment from the nipple, as must be done if tannic acid or the salts of lead are used. This is a serious disadvantage of many forms of treatment recommended for fissured nipple, for the irritation of removing the substance employed as a local sedative neutralizes its action.

For the engorgement and pain in the mammary gland itself, which so often accompanies fissured nipple, the writer has had excellent results from the use of an application of lead-water and laudanum, which is applied by means

of a cloth covering the whole breast, renewed at frequent intervals, and kept in place by a suitable mammary binder, either that recommended by Richardson or the Murphy bandage. This not only retains the dressing, but supports the breast and exercises even pressure upon it. With this treatment the development of mammary abscess is a rare event. If the child can be nursed from the other breast alone it is safer. I think to draw the milk from the affected gland by means of a breast pump until the cure is almost complete. If it is necessary that the child should nurse from the cracked nipple, a glass nipple shield with a rubber tip must be employed.—*Barton Cooke Hist. M. D., University Medical Magazine*.

**DIPHTHERIA AND GANGRENE.**—Dr. Girode discusses in the *Revue de Médecine*, No. 1, 1891, the relation between diphtheria and gangrene. He recalls the fact that cases of diphtherial angina were formerly classed with gangrenous angina, and that the leader of the reaction against this view was Bretonneau. Having described the occasional concurrence of diphtherial and gangrenous angina, he quoted a case of this description in which the false membrane occupied the throat, larynx, trachea, and bronchi, while the tonsils and uvula were gangrenous and sloughing. Death was brought about suddenly by detachment of the laryngeal false membrane and occlusion of the glottis. On examination after death, which occurred about forty-eight hours after the first complaint of sore throat, it was found that on the right side the sloughing of the tonsil and of the adjacent tissues was more advanced than on the left. The right internal carotid had become involved in the inflammatory process; its coats were thickened, brown, and softened, and its lumen was filled by a consistent adherent thrombus of blackish color. This clot occupied the vessel for four centimeters. Dr. Girode also described the case of a sewer cleaner, in whom gangrene of the skin of the calf was followed by diphtheria of the wound. The patient subsequently suffered from well-marked diphtherial palsy of ataxic type. In discussing the question whether in cases in which gangrene follows or accompanies diphtheria, the combination is more than accidental, Dr. Girode relates some hitherto unpublished observations of M. E. Roux, made during the course of experiments on animals with the Klebs-Löffler bacillus. He found that colonies of this microbe might develop in the deeper parts in great numbers, and invade the tissues subjacent to the false membrane. These colonies produced intense cellular irritation and thrombosis, leading either to molecular destruction or to sphacelus of the in-



vaded tissue. A sphacelus thus produced by the intensity of the diphtherial poison may become the nidus for putrefactive organisms, and gangrene thus started may extend to adjacent parts. The general purport of Dr. Girode's paper then, is to prove that, while diphtheria is essentially a superficial and pseudo-membranous affection, the specific process may invade the deeper tissues, and may then either produce molecular destruction or so enfeeble the vitality of considerable tracts that they become the seat of gangrene. There is, he holds, "an affinity between the two processes, although in their intimate nature they are separated by the great distance which, considered from the point of view of microbial biology, exists between parasites and saprophytes."—*British Medical Journal*.

**SPONTANEOUS AMPUTATION OF THE SMALL TOE IN AFRICANS.**—Although doubtless this anomaly has been observed by Englishmen who have visited Africa, it has not hitherto, to the best of my belief, been described in the medical press. It seems, as far as I am aware of, only to occur among Africans; although I have never seen it in those inhabiting the West India Islands, I believe it is common enough in Brazil among the negroes. The cases I have met with were among Kroomen, who come from a part of the west coast of Africa, about a day's journey from Sierra Leone. These men seldom wear boots, and consequently have very well shaped feet. The affection commences by a crack appearing on the under and inner surface of the little toe; a thing which is frequently met with among soldiers of whatever nationality, and which English sailors designate by a name more expressive than elegant. It, however, never goes beyond a crack or fissure in Europeans; but with Africans, whether living on shore away from the sea or on board ship, there is a progressive process, resulting ultimately in the toe dropping off. It is in no way connected with leprosy; the little toe is nearly always the only one affected, though the natives tell me that in rare cases the fourth toe goes also. I have tried incising the fissure, and then dressing it, and making them wear boots to keep out the salt water, but all to no purpose. The process when once commenced goes on, the fissure gradually extending round the toe. I have never allowed it to proceed to complete loss of the toe, because after a few months there is considerable pain, with some edema of the foot, and in order to render the man able to work I have taken the toe off. In their own country, however, not having a surgeon at their service, they have to let it run its course, and it then takes about a twelvemonth

before it finally drops off. The appearance when the fissure has extended completely round the toe is exactly as if a ligature had been bound tightly round it as near its junction with the foot as possible. The extensor tendon can be seen as a white cord marked with a black ring where the fissure crosses it. In two cases where I have removed the toe the joint of the ungual phalanx was wanting. The wound heals quickly after removal, and the men do not seem to feel the loss of the toe in the slightest.—*Dr. J. Toppin, London Lancet*.

**RECTO-VAGINAL FISTULA.**—Dr. G. Félizet (*Annales de Gynéc.*, January, 1891) dwells upon the difficulty of curing this miserable infirmity by plastic operations. It is not so much the passage of feces as the escape of gas into the minute spaces left between the opposed surfaces that delays or prevents sound union. Several surgeons advocate the free division of the perineum by the knife, holding that perineorrhaphy is easier and far more likely to prove successful than any paring and suturing of the edges of the fistula. Dr. Félizet has performed an operation based upon this principle, but not open to certain objections which might apply to complete perineorrhaphy. He splits up the perineum along a plane looking antero-posteriorly to above the level of the fistula, so as to convert the recto-vaginal fistula into two fistulae, one vagino-perineal, the other recto-perineal. The patient was thirty-five years old, and the fistula was caused by a prolonged second stage of labor two years previously. The fistula had very indurated walls; it commenced four fifths of an inch above the fourchette, and ran upward and backward, opening into the rectum nearly two inches above the anal orifice; flatus passed freely through it. The patient was placed in the lithotomy position; the operator's left forefinger was passed into the rectum, and the thumb pressed against the margin of the anus, so as to keep the perineum slightly on the stretch. Dr. Félizet then made a semicircular incision, as in bilateral lithotomy, through the perineal tissues. The knife thus dissected up the recto-vaginal septum, until it entered the groove of a director which lay in the fistula, being held in position by an assistant. When the septum was thus split up to the entire lower border of the fistulous canal, the grooved director was withdrawn, and the septum divided through the upper border of the fistula, the knife passing for about one eighth of an inch upward above the hardened tissue bordering the fistula. The rectal and vaginal sides of the wound were then pushed apart by the right forefinger. The second stage of the operation now commenced.

The director was passed behind the vaginal side of the split septum into the rectum through the fistula (the vagino-perineal part of the fistula being thus excluded), which was next laid open like an ordinary fistula *in ano*. The entire operation lasted about ten minutes. The flatus henceforth passed over the wound made by splitting up the recto-perineal part of the fistula; this wound was dressed with iodoform and boracic vaseline. The vaginal orifice of the fistula, no longer irritated by flatus or liquid feces, was almost closed spontaneously by the tenth day. It was then touched with nitrate of silver, and it closed entirely six days later. The ano-perineal wound did not heal entirely till at the end of a calendar month. Eight months later the parts were found, on examination, to be in a healthy state, and the patient was in perfect health.—*British Medical Journal*.

**REMOVAL OF THE GASSERIAN GANGLION.**—On Thursday, January 29th, Mr. Rose operated for the removal of the Gasserian ganglion in the theater of King's College Hospital. The patient was a female, aged sixty, under the care of Dr. Ferrier, who had suffered for many years from severe neuralgia affecting chiefly the superior maxillary nerve on the right side. Chloroform was given, and after stitching the eyelids together on that side in order to avoid any accidental injury to the eye, a flap of skin was dissected forward, the zygoma was exposed, and, after openings had been drilled with an electro-motor, divided and drawn down with the masseter muscle. The coronoid process of the lower jaw was next drilled in a similar manner, and turned up with the temporal muscle attached. The external pterygoid muscle was then cut through and the foramen ovale reached, into which the pin of a half-inch trephine was inserted, and a disc of bone surrounding it in this way removed. The bleeding was troublesome, and persisted for some time. The ganglion was seized by some specially constructed hooks, one of which had a cutting edge upon its concave surface; by means of these its attachments were loosened and divided. Bichloride of mercury solution (1 in 3,000) was used during the operation. The bones which had been sawn were replaced and secured in position by wire sutures passed through the drill holes previously made, and a drainage-tube inserted. Cyanide gauze dressing was applied. The electric illuminator was found most useful during the deeper dissections. The patient has progressed most satisfactorily since the operation, having had no return of the neuralgic pain, although it is impossible to say at present that the whole of the ganglion was

removed. The sutures were removed from the eyelids on the third day; the eye was healthy, but the conjunctiva insensitive. We hope to publish fuller details of this important case later. The operation was witnessed by a large number of members of the profession and students occupying about an hour and a half in its performance. We are glad to be able to state that the patient on whom Mr. Rose performed the first operation for the removal of the Gasserian in April last, by a different method, continues free from pain and is in good health.—*Lancet*.

**THE CIRCULATION OF THE BLOOD IN THE BRAIN.**—Dr. B. Levy has published in Virchow's *Archiv* an extensive series of careful mathematical researches, the result of which entirely contradicts that previously obtained by Geigel, who contended that constriction of the arteries produces an increased blood supply, and that their dilatation causes the supply to decrease. Dr. Levy insists that physiological supply of blood to the brain is regulated in the same way as in all other organs—that is, the dilatation of arteries produces an increase, and their constriction a decrease, in the current of blood. Venous congestion leads to arterial anemia. Acute compression of the brain caused, for instance, by a foreign body penetrating the skull, causes arterial anemia. Dilatation of arteries beyond certain limits—caused, for instance, by inflammation—produces arterial anemia. Extensive depletion of the capillaries leads to a perversion of the blood supply; so that dilatation of the arteries then produces anemia, while contraction leads to hyperemia. The supply is consequently not influenced physiologically by the fact of the inclosure of the brain in a firm unyielding case. The opening of the cranium likewise does not alter the supply.—*Ibid*.

**MALARIAL CIRRHOSIS OF THE LIVER.**—From the scant notice that this condition of liver receives in our text-books, one surmises that it is a disease not frequently met with at home.

A case that came under my observation agreed rather with Dr. Cullingworth's experience in some of its clinical features, than with those tabulated by Dr. Saundby. The main features were these: Only three months' exposure to malarial infection; well-marked ascites, and anasarca of legs; relieved by tapings; jaundice present, but slight; liver diminished and contracted very much in size (verified). All other causes were carefully eliminated before arriving at the diagnosis. Duration of disease only two years.—A. H. Bampton, M. D., *British Medical Journal*.



# The American Practitioner and News

"NEC TENUI PENNĀ."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE SNOOK-HERR POISONING.

On Wednesday, the 15th inst., there occurred at Lyndon Station, some eight miles east from Louisville, a wholesale poisoning with terribly tragic and mysterious character and consequences. The occasion was a wedding, upon which some sixty guests attended. Of these, forty were taken in from four to sixteen hours with violent and persistent vomiting or purging (or both), attended with great prostration in all and collapse in some cases. Death was the result in five cases, and it is not certain that more will not follow. The event is still shrouded in mystery, physicians and toxicologists being in doubt as to the offending agent.

The following from Dr. H. M. Goodman, Demonstrator of Medical Chemistry and Bacteriology, University of Louisville, contains about all that has come to light with reference to the affair at this writing:

CHEMICAL LABORATORY OF THE  
UNIVERSITY OF LOUISVILLE, April 19, 1891. }

Inspection: A careful examination of the vessel and its contents failed to show the presence of any gritty substance. The salad was composed of chicken, celery, olive oil, mustard, salt and pepper, and chicken broth mixed with it.

Chemical Tests: A portion of the salad was mixed with distilled water, to which was added one half part of pure hydrochloric acid, and the whole boiled for one hour. This was then filtered and subjected to the following tests:

For Arsenic—Reinsch's Test: Absolutely no deposit on the copper strips after one half hour of continuous boiling. The strips, thoroughly dried and placed in the reduction tube, formed no sublimate.

Marsh's Test: New Generator.

Precautions: Pure zinc, distilled water, C. P. sulphuric acid, thorough cleanliness. The gas was allowed to form for fifteen minutes, during which time the porcelain plate was used to prove the purity of the materials, and no spot formed. One half ounce of the concentrated filtrate was now added to the contents of the generator, and fifteen or twenty plates were used at intervals of from one half to one minute, but not a single spot was obtained, proving the absence of arsenic and antimony.

A fresh portion of the salad was taken and thoroughly mixed with pure hydrochloric acid, and the mixture boiled for one hour, filtered, and subjected to Reinsch's test. Result absolutely negative. Bearing in mind that other metals, namely, antimony, mercury, silver, tin, gold, bismuth, and palladium will also form a coating on the copper strips, in the absence of any deposit whatever, I think we can safely exclude these substances. A source of error may also arise from the fact that the presence of complex organic substances, especially when they contain sulphur, will also form a coating on the copper strips, which, when placed in the reduction tube, will sublime and form grayish deposits, sometimes even in the form of acicular crystals (evidently a copper compound). Thus we can see how an incompetent observer may form a hasty opinion. Antimony and mercury are the other metals which sublime under the above circumstances, arsenic in the form of octahedral crystals, antimony as an amorphous sublimate, and mercury in the form of spherical globules. Therefore, for the complete corroboration of Reinsch's test for arsenic, antimony, or mercury, it is not admissible in medico-legal cases to state that a sublimate formed under the above circumstances is arsenic, unless

we can verify the characteristic octahedral crystals under the microscope and still further establish their identity by chemical tests. The delicacy of this test is such that the merest tyro in chemistry need have no difficulty in establishing the presence of arsenic in a suspected solution. One grain of arsenic dissolved in an acid solution is sufficient to coat three hundred and fifty square inches of copper plate.

A second portion of this filtrate was submitted to Marsh's test with the same precautions as yesterday, and it formed no deposit on the porcelain. A portion of the milk was concentrated and subjected to the following tests:

1. Tr. ferri chloridi; no color.
2. Bichromate potassium and sulphuric acid; no result.

Concentrated C. P. nitric acid; no color.

The electrolytic separation of copper was omitted, as the presence of any injurious quantity could be extracted with water and hydrochloric acid. This was done, and the filtrate tested with ferrocyanide of potassium, which gave no precipitate.

Phosphorus-hydrogen test; no result. The absence of cyanides and oxalates was shown by the general test for acid radicles.

*Plomaines.* Stas Otto Method: The salad was digested at a temperature of seventy degrees for four hours in ninety-per cent alcohol, to which thirty grains of tartaric acid was added, and filtered. The filtrate was evaporated in a strong current of air at a temperature of 35°. Residue taken up in absolute alcohol, filtered, and again evaporated. This residue was dissolved in water, rendered alkaline with sodium bicarbonate, and agitated with ether. After separation the ether was removed and allowed to evaporate spontaneously. The residue was again dissolved in water agitated with ether, ether removed and again allowed to evaporate spontaneously, and this reserved for further experimentation.

A specimen of dejecta from a patient who died, passed on the second day, was sent by Dr. T. Anderson. It was mixed with pure hydrochloric acid, placed in retort and distilled. The distillate, subjected to Reinsch's test, gave no deposit on copper. Slips placed in the reduction tube formed no sublimate. Specimen of

urine from patient who died, passed on the second day. This was also sent by Dr. Anderson. Concentrated to one third its original bulk and filtered, acidulated with hydrochloric acid, and subjected to Reinsch's test, gave no deposit on the copper slips. Slips placed in the reduction tube gave no sublimate. A specimen of milk was boiled with an equal part of hydrochloric acid and filtered. Reinsch's test applied to this specimen gave no deposit. Slips in reduction tube gave no sublimate. Marsh's test was applied to the remaining portion of this specimen. Results negative.

*General Separation for Metals.* A portion of the milk, filtered and tested with litmus paper, showed a marked acid reaction.

1. To the greater portion of the filtrate some hydrochloric acid was added. No precipitate found. This excludes lead, silver, and mercury.

2. In the absence of a filtrate forming under test (1) the solution was next boiled down to one half the original quantity, and then saturated with sulphuretted hydrogen gas, and no precipitate formed. A precipitate would have indicated mercury, lead, bismuth, copper, tin, antimony, arsenic, gold, or platinum; consequently these metals can be excluded.

3. The solution was then boiled until it ceased to smell of sulphuretted hydrogen, a little strong nitric acid added, the whole evaporated to dryness, and the residue gently ignited in the dish. After cooling, some strong hydrochloric acid was poured upon the residue and some distilled water added, and the undissolved residue filtered off. To a portion of the filtrate was added some molybdate of ammonia, and a precipitate formed, showing the presence of phosphates. This was examined under table (3), and proved to be magnesium and calcium, excluding alumina, iron, and chromium.

4. To the filtrate was added some sulphide of ammonia, and no precipitate formed, excluding zinc, manganese, cobalt, and nickel. The investigation was stopped at this point, as it was not thought necessary to test for the metals of the barium and potassium groups. Absence of cyanides and oxalates was shown by general tests for acid radicles. Absence of morphine, strychnine, brucia, atropine, was shown by appropriate tests.



A specimen of urine, from a patient who was very ill and who has since died, sent by Dr. Anderson, April 21, 1891. A portion of this specimen was concentrated to one third its original bulk and carefully tested by Reinsch's test. No deposit formed on the copper; copper strips removed, carefully dried and placed in a clean reduction tube. No sublimate formed, showing the absence of arsenic, antimony, and mercury.

Specimen of dejecta from a patient who was also very ill, and since has died, sent by Dr. Anderson, April 21, 1891. This was taken, placed in an evaporating dish, carefully dried over a water-bath, and then mixed with an equal amount of hydrochloric acid. This was placed in a glass retort and carefully distilled. The distillate, which would have contained arsenic as the terchloride, had any been present, was tested by Reinsch's test. No deposit on slips. Copper slips placed in the reduction tube gave no sublimate, showing absence of arsenic, etc.

**Marsh's Test:** Materials and apparatus tested with ten saucers. No deposit formed, proving purity of the materials. Five drams of the distillate were then placed in the generator and the flame tested from time to time with ten saucers. No spot formed, thus proving the absence of arsenic or antimony.

**Tyrototoxic.** Some of the filtered milk was rendered neutral with sodium carbonate, agitated with ether (equal volume), allowed to stand in a glass-stoppered bottle for twenty-four hours, the ether removed and allowed to evaporate spontaneously in an open dish. The aqueous residue was acidulated with nitric acid, then heated with an equal volume of liquor potassium, and the whole concentrated on a water-bath at a temperature below 130° F.

The aqueous residue obtained from milk, after extraction with ether, was concentrated to one half its original bulk, and subjected to the following tests for ptomaines: Platinum chloride gave no precipitate. Gold chloride gave no precipitate. Potassio-mercuric iodide gave no precipitate. Ferric chloride and potassium ferro-cyanide gave no color. I failed to demonstrate the presence of tyrototoxic. The residue obtained from the salad.

after extraction by the Stas-Otto method, gave the following reactions for ptomaines: Potassio-mercuric iodide a yellowish-white precipitate. Gold chloride a purple color. Platinum chloride a heavy yellowish-white precipitate. I do not know as yet what this substance is, as I am still experimenting with it, but I will state that one c. c. of it injected into the leg of a chicken killed it in three quarters of an hour.

As will appear from the above description of the methods used in the examination of such articles of food as came into my possession, as well as the discharges from several of the worst cases (both of whom died) that occurred after the fatal wedding, I have failed absolutely to demonstrate the slightest trace of arsenic or any other inorganic poison or vegetable alkaloid which would have produced symptoms similar to those that developed uniformly in all of the affected guests. The absence of mineral poisons being demonstrated, the question reduces itself to poisonous

*Ptomaines or Mushrooms.* Unfortunately I could not procure any of the latter, and the evidence to prove the cause of the poisoning must rest upon the question of what articles of food did most of the sufferers eat. I am perfectly well aware that the question will be asked: "Suppose you did demonstrate the presence of ptomaines, what does that signify? Are not ptomaines more apt to develop the longer the food is kept, and does their mere presence in a toxicological examination necessarily mean that they were there at the time the food was eaten?" A good many opinions have been expressed by physicians regarding the cause or the causes of the fatal illness, and some of them have been unwise enough to place themselves upon record as stating that it was undoubtedly due to this or that mineral poison. Certainly the evidence of a chemical analysis, with the corroborative clinical testimony, is a stronger proof than any *a priori* reasoning. Let us inquire a little more definitely into those mysterious agencies through which poisonous materials are sometimes formed during the process of putrefaction. "A ptomaine is a chemical compound, which is basic in its character, and which is formed during the putrefaction of organic matter. On ac-

count of their basic properties, in which they resemble the vegetable alkaloids, ptomaines are known as putrefactive alkaloids. They are often improperly spoken of as animal alkaloids; but this is incorrect, as some ptomaines are formed during the putrefaction of vegetable matter. Some ptomaines are highly poisonous, but the vast majority are wholly inert. Again, all poisonous substances formed during putrefaction are not ptomaines; for instance, phenol and hydrogen sulphide.

"Since all putrefaction is the result of the action of bacteria, it follows that all ptomaines result from the growth of these micro-organisms. The character of the ptomaine depends upon the bacterium engaged in its production, the nature of the soil, the temperature, the amount of oxygen present, and the duration of the process. It was formerly supposed that putrefaction was simply oxidation, but the researches of Pasteur and others have demonstrated that millions of germs are engaged in transforming organic into inorganic matter. If organic matter be inclosed in sterilized, hermetically sealed cans, so that these little workers can not reach it, it will remain unaffected indefinitely."

I am indebted to Dr. James S. Chenoweth for the following interesting clinical evidence:

"The dinner was eaten at the wedding about 3 o'clock Wednesday afternoon. The first person taken sick was Mrs. —, in whose case the first symptoms appeared between 6 and 7 o'clock in the afternoon. The trouble began with pain in the bowels, followed by profuse watery discharges and nausea and vomiting, with severe rigors. The temperature very soon afterward reached 103° F. I saw her about 11 o'clock Thursday night. She complained of pain in the bowels. Abdomen slightly tender to the touch. Alvine discharges thin, green in color, and rather offensive. Slight flatulency, vomiting profuse, greenish in color, but contained no blood. Tongue red at the tip and edges. Aphthous patches in the mouth. Temperature 99.5°. Pulse 112. Skin dry and parched. No swelling of the face or eyelids. No eruption. Urine diminished in quantity. Intense thirst. This

patient ate salad, mushrooms, ice-cream, chocolate, and cake.

"Case 2—Mr. —. Ate dinner about 3 o'clock, and the first symptoms appeared about 8 o'clock that evening. First symptoms were slight pain in the bowels, then nausea and vomiting and diarrhea. Alvine discharges began before vomiting, and were thin, watery, and green, very offensive, and contained considerable gas. Vomited matters were very sour, but contained no blood. Abdomen slightly tender, no convulsions or swelling of the face. No hoarseness or constriction of the throat, no cutaneous eruption. Urine diminished. Thirst intense. No delirium or other marked nervous symptoms. This patient ate salad, mushrooms, olives, cake, ice-cream, chocolate.

"Case 3—Mrs. —. The first symptoms developed Wednesday evening at 10 o'clock. Pain in the bowels. Throat dry. Nausea and vomiting; vomited matter sour, but contained no blood. Alvine discharges thin, green, profuse, and watery. Abdomen tender and swollen. No convulsions. No swelling of the face. No eruption. Skin dry and parched. Temperature 102°. No marked, nervous symptoms. Ate three mushrooms and some salad.

"Case 4—Mr. —. Symptoms came on during the night. Pain in the bowels. Vomited great quantities of sour material. Alvine discharges profuse, dark green, thin, and watery. Abdomen tender. No spasms nor swelling of the face or eyelids. Skin dry and hot. Temperature 102.5°. Ate salad and other things."

Four cases reported to me by Dr. Holloway and seven by Dr. Scott, with fourteen gathered by me in the county, showed essentially the same symptoms. Eighteen of these cases ate salad. I was unable to learn in regard to the other seven. Six cases reported to me at Mr. Herr's ate of every thing except salad, and escaped infection. Of five cases (included above) reported to me by Mr. Hornsby at Eminence, four ate cake and salad sent to them from the wedding, and are all sick. One ate the cake but no salad, and escaped. All the cake used at the wedding was made in town. The cream used in coffee and chocolate was milked Wednesday morning and put in the spring-house until used a little later in the day.



It was used in the coffee of those not sick. The butter was fresh from a neighboring farm. The celery had been in the spring-house since the day before. The chickens had been killed and cooked on Monday, and left standing in the water in which they were boiled, in an iron pot in the kitchen, until Tuesday morning Bridget Cain, one of the cooks, removed the chickens from the water and picked them to pieces. Bridget Cain was taken sick on Tuesday afternoon with the same symptoms presented by the cases enumerated above. This was the day before the wedding. Bridget admitted, on cross-questioning, that she had eaten some of the chicken while preparing it. She ate nothing else during the day except at breakfast, when she ate the same things that were eaten by the rest of the people in the house. She touched no milk or cream except in the coffee. This cream was used by others without ill effect. The mushrooms were not opened until Wednesday morning. Therefore Bridget Cain could not possibly have obtained any, since she was taken sick Tuesday afternoon. Nothing but cake and salad was sent to Eminence. The mushrooms were simply placed on the plates of each guest by the side of the salad, olives, and beaten biscuit. Some of the broth from the chickens was also mixed in with the other ingredients. Dr. Henry Chenoweth informs me that there had been no mushrooms sent to Eminence. These statements have since been corroborated by three responsible parties. The spring-house in which the cream was kept is fourteen feet below ground and fourteen feet in diameter. The spring is six feet deep and five feet in diameter, and supplied by a continuous stream of water. Dr. Kastenbine's analysis of the spring-water and earth around the spring disproves the theory of arsenic or other mineral poison having been placed in the spring. If these statements be accurate, and I have every reason to believe they are, as they have been obtained without partiality, the chemical evidence tends to show that the salad was the one article of food that was responsible. This is fully borne out by the chemical analysis, ptomaines having been demonstrated in the salad, and the milk shown to be free from tyrotoxi-

con. If I remember aright, the time when the chicken was cooked and for the week following was extremely warm and sultry. We have here all the necessary conditions for the development of ptomaines: heat, light, an open vessel containing an animal broth. By the action of micro-organisms, which are to be found everywhere, fermentative changes were probably started in the broth and continued after its admixture in the salad. The symptoms of arsenical poisoning and irritants resemble in some respects those of poisonous ptomaines, but the difference is so marked in many respects that it is not so very difficult to distinguish between them. In arsenical poisoning the vomiting comes first; in acute cases the symptoms always appear within an hour, twenty minutes to one half hour being the rule time; in the subacute form the symptoms usually come on with an hour. In a few isolated cases the first appearance of the symptoms did not come on for six or eight hours. This, of course, depends upon the condition of the stomach—whether empty or full, or whether the person is addicted to the use of alcohol or morphine—but this delay is the exception, not the rule. It is not likely that twenty-five persons would uniformly have symptoms come on two or three hours later, up to eight hours, after all had partaken of food contaminated with arsenic. On the other hand, food contaminated with poisonous ptomaines and taken into the system is attended by just such symptoms as developed in all the cases of which we have clinical records. The symptoms of ptomaine poisoning come on in four, six, or even eight to sixteen hours after ingestion of the poison. My own opinion, backed by the substantial clinical evidence and the negative evidence of a thorough chemical examination for mineral poisons is, "that the source of the poison was a ptomaine which formed in the chicken broth during the interval that elapsed between the cooking of the chicken and the making of the salad, or that the chickens were diseased at the time they were killed, and that the admixture of the broth with the salad contaminated the entire mass, the process of fermentation continuing up to the time it was eaten by the guests.

I desire also to extend my thanks to Dr. John L. Howard and Mr. J. C. Young for valuable assistance rendered me in the prosecution of this investigation.

### Notes and Queries.

#### *Editors American Practitioner and News.*

NEW YORK LETTER.—I have been in this great city now nearly two weeks, and have put in my time attending the clinics at various hospitals, with my headquarters at the Polyclinic, on East Thirty-fourth Street. This institution is well patronized at this season of the year especially. The University of Louisville is well represented at the Polyclinic—there are eight of the graduates attending there now, and, as you know, two of the professors attended lectures in our University. Their latest addition to their corps of teachers is one of the University's recent graduates, Dr. S. E. Milliken. His position is instructor in surgery, assistant to Prof. Wyeth.

*La grippe* has been epidemic in New York this spring, and there are quite a number of prominent doctors sick of the disease. Professors Markoe, Ripley, Gray, and Mundé have been unable to hold their usual clinics for the last ten days on account of attacks of influenza.

The operative gynecologists seem to be as busy as ever, notwithstanding the attempts of some few conservative men, such as Apostoli and others, to stay the popular clamor for operative measures for the relief of almost every form of disease that the female generative organs are subject to. The slightest rent in the cervix or perineum (and they are found in a majority of the women who come to the clinics), is promptly operated on. I saw laparotomy done at Bellevue Hospital yesterday simply to explore the pelvic cavity, the operator explaining that he thought there were "old adhesions" holding the uterus retroflexed, he corrected the displaced organ by stitching the fundus to the anterior wall of the abdomen, and after splitting a slightly enlarged ovary and finding it healthy, which he stitched together again and did not remove, he closed up the incision in the abdomen, explaining to the

class that "now the patient would surely be greatly improved."

Dr. Wyeth has been doing some heroic operations (two since I have been here) on the cranium in cases of microcephalous causing idiocy and epilepsy. The operation consists of sawing through the parietal bones about half an inch to either side of the middle line (sagittal suture) from the coronal to the lambdoid sutures, then with a lever raising the parietal bones like a trap-door and breaking loose their articulations to other bones. The parietal bones are left raised free from the brain, giving (as he says) that organ a chance to develop. The patient, during and after the operation, looks almost as badly injured as if a car wheel had struck his head, yet thus far the patients have done well, and the doctor told me of having done the same operation several months ago at Seymour, Ind., on an idiotic boy, which has resulted already in marked improvement. Doubtless he will make a full report of his cases and the results.

On the invitation of Prof. J. Lewis Smith I attended a special meeting of the Academy of Medicine, Section on Pediatrics, last night. The subject was The Prevention of Diphtheria, a paper by Dr. Smith, which was very interesting, and was discussed at length by Doctors Jacobi, Holt, and Prudden. Dr. Jacobi reported that there had been over forty thousand deaths in New York of diphtheria in the last thirty years. The main points brought out in the discussion were that the germs of diphtheria were disseminated largely and principally by the children attending the public schools, and it was recommended that the authorities appoint competent physicians as inspectors, whose duty it shall be to examine each child's throat every morning as he enters the school, and if found with the slightest symptoms of the disease to be promptly sent home. Dr. Smith cited several cases in which the germs of diphtheria had been communicated to children by nursing sick cats, those domestic pets being subject to that disease.

The interest in Koch's lymph seems to have died out entirely. Wherever I have inquired about it I have invariably received the reply "no good," and that with a smile, as if it had



been a practical joke. I have seen several cases at the Polyclinic upon which the lymph had been tried and abandoned. Even in a case of lupus on the face, which was thought to have been benefited, and a disease in which, as you will remember, great things were claimed for lymph, it has utterly failed to cure, and Prof. Bronson, who made the experiment, is outspoken in condemning the remedy. I am told that several enterprising druggists in this city are anxious to sell out their stock of the fluid at greatly reduced prices, as the demand for the article is growing less every day.

R. B. GILBERT, M. D.

#### TEMPERANCE MEDICAL MEN IN ENGLAND.—

Whatever may be said of total abstainers from alcohol, it can never be alleged truthfully against them that their peculiar habit interferes with their industry, their energy, or their perseverance. When an aspiring member of Parliament is about to contest a district, one of the first things he considers is the strength of the teetotal element. If there be many teetotal organizations, he is sure from the first that he must reckon with them; they will have their own ideas, they are likely to combine in many ideas, and perfectly certain it is that, should they set to work, their physical powers will fully compensate for any shortcomings of an argumentative kind. They will be aggressive, patient, vigilant, and of long endurance. Last week there was an illustration of some of these faculties in those abstaining members of the profession of medicine who are the representatives of the British Medical Temperance Association, a medical body now numbering close upon 500, and, we believe, over-numbering that figure if they who are learning their "rudiments," as Dr. Cophagus called it, may be considered medical. This society, like its fellows, meets ordinarily in its own central rooms in the west end of London, or in the central rooms of its branches in other parts of the kingdom, and there carries on its work of papers and discussions. But now, on the suggestion of its indefatigable honorary secretary, Dr. Ridge, the members of the society, with characteristic pertinacity, are moving into new pastures and holding meetings in different dis-

tricts, in order to invite the busy practitioners of the district visited to meet them in the most convenient way, and discuss with them the great argument for and against alcohol. On Wednesday week last, February 25th, the first meeting of this kind was held at Northampton House, St. Paul's Road, Highbury, and for numbers present, as well as for the matter of debate, it must be accepted as a most successful first attempt. Dr. B. W. Richardson, the president of the Association, occupied the chair, and in an opening address led the way simply toward discussion. Every word that was extreme was avoided as unnecessary. The apathy of the profession as compared with the energy of the clergy was first touched upon, and then the sanitary side of the matter was made a special point for consideration. Alcohol produces a certain large and calculable mortality; the mortality means a large bill of sickness, and the sickness means an enormous loss of labor and the rewards of labor. But we, as a profession of health, said the chairman, are the custodians of health, and ought, therefore, specially to concern ourselves in the wholesale removal of the preventable cause of so much disease and misery. If an epidemic from some more obscure cause destroyed a tithe of people so systematically and regularly as alcohol does, we should be ambitious to vie with each other in discovering the mode of reaching and removing the root of the evil. It is our duty to do the same thing in regard to this great plague which is always before our eyes. Another point dwelt upon was the recognizable pathology of alcohol, and the lesson it supplies, in respect to the employment of it as a medicinal remedy. Touching this last subject, the speaker repeated his often stated opinion that alcohol, whenever it is prescribed in disease, should be prescribed as "a weapon of precision"—that is to say, diluted with water in measured doses, without the least complication. This plan, he urged, answers perfectly, and after fifteen years' employment of it he had found it equal to every requirement. Finally, the requirement itself was, he thought, in truth, very much curtailed when all the facts of the necessity were fully disclosed. The masters of physic who recognized the force of the *experi-*

*entia fallax* were most sound when they exposed that kind of experience, and never more was that soundness verified than in the practice of alcohol administration. Let a practitioner, said the speaker, who has been accustomed to use alcohol, once have the courage to look at the other side of the shield, and see what remarkable results follow treatment without it—as, for example, in cases of hemorrhage, pneumonia, and asthenia, and the rapidity with which the mode of treatment without alcohol would advance, would lead to quite a revolution in the practice of using alcohol as a remedial instrument. Dr. Ridge, Dr. Norman Kerr, and Mr. Moir followed on the same side. The most trenchant opponent was Dr. King, who dwelt more particularly on the social influence of alcohol for good when perfect moderation tempered appetite. He was of opinion that wine, judiciously taken, aided the worker and sustained the enfeebled. Altogether, this new experiment of local discussion on the alcohol topic from its medical aspects, by medical men among themselves, was so friendly, hopeful, and instructive that we trust it will be repeated. It is good for brethren to dwell together in unity.—*Lancet*.

DR. HOLMES ON SPECIALISM.—Oliver Wendell Holmes puts in the mouth of a young doctor the following words: "I am very glad," he said, "that we have a number of practitioners among us who confine themselves to the care of single organs and their functions. I want to be able to consult an oculist who has done nothing but attend to eyes long enough to know all that is known about their diseases and their treatment—skillful enough to be trusted with the manipulation of that delicate and most precious organ. I want an aurist who knows all about the ear, and what can be done for its disorders. The maladies of the larynx are very ticklish things to handle, and nobody should be trusted to go behind the epiglottis who has not the *tactus eruditus*. And so of other particular classes of complaints. A great city must have a limited number of experts, each a final authority to be appealed to in cases where the family physician finds himself in doubt. There are operations which no

surgeon should be willing to undertake unless he has paid a particular, if not an exclusive attention to the cases demanding such operations. All this I willingly grant; but it must not be supposed that we can return to the methods of the old Egyptians, who, if my memory serves me correctly, had a special physician for every part of the body; in short, falling into certain errors, and incurring certain liabilities. The specialist is much like other people engaged in a lucrative business. He is apt to magnify his calling, and to make much of any symptom which will bring a patient within range of his battery of remedies. I found a case in one of our medical journals, a couple of years ago, which illustrates what I mean. Dr. Blank, of Philadelphia, had a female patient with a crooked nose—deviated septum, if our young scholars like that better. She was suffering from what the doctors call reflex headache. She had been to an oculist, who found that the trouble was her eyes. She went from him to a gynecologist, who considered her headache was owing to causes for which his specialty had remedies. How many more specialists would have appropriated her if she had gone the rounds of them all I dare not guess; but you remember the siege in which each artisan proposed means of defense, which he himself was ready to furnish. Then a shoemaker said, 'Hang your walls with new boots!' Human nature is the same with the medical specialist as it was with ancient cordwainers, and it is, too, possible that a hungry practitioner may be warped by his interest in fastening on a patient, who, as he persuades himself, comes under his medical jurisdiction. The specialist has but one fang with which to seize and hold his prey; but that fang is a fearfully long and sharp canine. Being confined to a narrow field of observation and practice, he is apt to give much of his time to curious study, which may be *magnifique*, but it is not exactly *la guerre* against the patient's malady. He divides and subdivides, and gets many varieties of diseases, in most respects similar. These he equips with new names, and thus we have those terrific nomenclatures which are enough to frighten the medical student, to say nothing of the sufferers staggering under this long cata-



logue of local infirmities. The 'old fogie' doctor who knows the family tendencies of his patient, who understands his constitution, will often treat him better than the famous specialist who sees him for the first time, and has to guess at many things the old doctor knows from his previous experience with the same patient and the family to which he belongs. It is a great luxury to practice as a specialist in almost any class of diseases. The special practitioner has his own hours, hardly needs a night-bell, can have his residence out of the town in which he exercises his calling, in short lives like a gentleman, while the hard-working general practitioner submits to a servitude more exacting than that of the man who is employed in his stable or kitchen. That is the kind of life I have made my mind up to."—*Medical Record*.

ORGANIC HEART DISEASE AT DIFFERENT ALTITUDES IN SWITZERLAND.—Taking as a basis the statistics of Switzerland for the years 1876 to 1886, recording to 25,500 cases of death from organic heart disease, Md'lle N. Iwanoff has written an essay on the question whether mountaineers suffer more frequently from that disease than the inhabitants of the plains. The writer has constructed a table in which all the localities of Switzerland were divided into four categories, according to their altitudes. In the first, situated from 200 to 400 meters above the level of the sea, there was a mortality from organic heart disease of 102 per 100,000 inhabitants; in the second, situated from 400 to 700 meters above the level of the sea, the mortality was 92 per 100,000; in the third, from 700 to 1,200 meters above the level of the sea, 82 per 100,000; the last category, comprising all higher altitudes, had a mortality of only 47 per 100,000. These numbers show plainly that the mortality of organic diseases of the heart decreases as the altitude of the habitation increases. As a secondary result of the inquiry, it was found that this mortality is higher in towns than in the country. These results are all the more interesting, as formerly all eminent physicians, excepting perhaps Stokes, forbade their patients all unnecessary exertion, and even now Oertel's treatment meets with considerable hos-

tile criticism. Professor A. Vogt, of Berne, adds several statistical remarks to the essay, from which it appears that if the population were strictly divided into agricultural and industrial districts, the law of decrease of organic heart disease in proportion to the higher altitude would be more marked in the agricultural districts. The statistics of the industrial districts seem, on the other hand, to refute the law. Considering, however, that the mountaineers are mostly watchmakers or machinists, while in the plains there are more builders and other artificers, whose work requires uninterrupted motion of the body, Professor Vogt concludes that this deviation from the rule is only apparent. This conclusion seems justified by the fact that, of 100,238 recruits, the proportion of heart disease among those of sedentary occupation far exceeded all the rest.—*London Lancet*.

THE TYPHOID EPIDEMIC AT FLORENCE.—From what purports to be an "authentic" account of the epidemic of typhoid fever at Florence, it appears that the outbreak began in the early part of December and reached its height toward the end of that month and the beginning of January. From December 1st to January 23d the number of cases recorded was 1,342, with 174 deaths. The origin of the epidemic is officially attributed not to contamination of the wells or cisterns, but to occasional fouling of the canal, which supplies a part of the city with what is known as the Monte Reggi water. This water comes from the Mugnone torrent, and it passes through a district in which several cases of typhoid fever had occurred. As to how these arose, no official theory seems to be forthcoming. In the San Giorgio Barracks, which are supplied with Monte Reggi water, forty men were attacked on one day, while in the Engineer's barracks, in the western quarter of Florence, only one man has suffered. The waters of the Mugnone have now been diverted from the conduits, and since then, it is stated, no fresh cases have occurred, except such as were already in the incubation stage before the infected water supply was cut off. The part of Florence where foreign visitors usually reside is said to have been quite

untouched by the epidemic. This statement will no doubt tend to reassure the minds of intending travelers, who have not unnaturally been alarmed by the accounts of the visitation which had reached this country. As to the causes of the outbreak, it seems doubtful whether the whole blame should be laid to the Monte Reggi water. From what has appeared in Italian medical journals, and from information furnished us by persons in a position to know the exact state of things, it is impossible to doubt that the wells of Florence were in a highly dangerous condition. The authorities practically admitted this by ordering them to be closed, and directing that only boiled water should be used for drinking purposes. As many of the houses had no fireplace it was impossible for the people to comply with this salutary regulation. The authorities therefore established stations in various parts, where boiled water was supplied to those applying for it. Indeed, the resolute way in which the authorities grappled with the difficulties of the situation deserves the highest commendation.—*British Medical Journal*.

**DANGERS OF DOMESTIC REMEDIES.**—Popular delusions, although frequently possessing farcical characteristics, mostly end in producing disastrous results. The craze for economy is widespread, and perhaps inevitable when the income is small and expenses great. The general practitioner protests against the prescribing chemist, and the chemist in turn is never-ending in his denunciation of "stores." According to their means and opportunities members of the public glide down the scale from the top to the bottom, ever seeking a cheaper market. Necessarily a certain amount of danger attends the downward path, but the danger is greatest when the individual essays both diagnosis and treatment, especially if he attempts to prepare his own remedies. Doubtless there are some simple modes of treatment which may be safely carried out; but in the oral transmission of the details of domestic medication the risk of a missing link has always to be reckoned with, and to the experienced onlooker the problematic nature of the sequel is intensely interesting. Happily, it is not

often that ignorance is so fatal as in the recent instance in Cheshire. Two men have died and a third lies in a precarious state, as the result of attempted self-medication. Imagining that they were suffering from itch, the advice of a fellow workman was taken, and some nitric acid and quicksilver were procured, mixed, and applied to the skin. The druggist had labeled the bottle "Poison," but he does not appear to have made any inquiry as to the purpose for which the substances were to be used. A verdict of "Death from misadventure" was passed, and strong comments on the ignorance displayed were made by the coroner. To attempt to fathom the stages by which such ignorance has been reached may seem futile, and yet it appears within the bounds of possibility that this sad accident is really the result of confusion. Ammoniated mercury ointment and nitrate of mercury ointment have widespread uses. It seems just possible that with lapse of time simple directions for the preparation of the former have been muddled into the latter, and that in place of a precipitate a highly corrosive and poisonous liquor has been made. The substitution of nitric acid for ammonia, both being in common use, seems a fairly natural error, although the selection of the liquid mercury for the solution of the perchloride of mercury is more difficult to follow. As it stands, the case sufficiently demonstrates the dangers and folly of attempting to compound remedies in complete ignorance of the properties they possess.—*London Lancet*.

**A NEW ARGUMENT AGAINST VACCINATION.** Anti-vaccinators are not expected to be consistent in any thing except their opposition to vaccination, and in that only so far as it is supposed to affect the welfare of their children and others outside the charmed circle of their own personality. We are tolerably familiar with the stock arguments against a practice to which our own race now owes the preservation of so many lives, and not a little of that physical attractiveness which smallpox can do much to mar. A pleasurable novelty, therefore, attends the startling plea which was advanced the other day by a recalcitrant father at Plumstead, who courageously based his objections to a com-



pliance with the law upon the grounds that "it was well known that bulls go mad every seven years, and that the cows make them mad; that these same cows are used for vaccinating children; and that the children go mad." This is a sort of physiological rule-of-three; and the fourth term may be appropriately found in a further assertion—thrown out as a sort of almost needless clinching of the argument, out of mere fullness of knowledge—that "the mad houses are full of vaccinated children." "What," asked the perplexed vaccination officer pathetically, "what is the use of arguing with a man like that?" What, indeed! The magistrate appeared to think that, on the whole, the most satisfactory answer was to be found in the wife's promise to have her child vaccinated within a fortnight, and adjourned the case for its fulfillment. Still, whatever the result of this particular skirmish, the husband may always claim that his contention is certainly more original than and at least as logical as the bulk of those which, despite their frequent repetition, are so often dinned into our ears by orators far above the social status of a bricklayer. The episode is another interesting example of the way in which the wildest statements acquire by quotation the dignity of facts, and may thus come to serve as the undoubtable material of a creed. The process is one capable of many ingenious applications.—*British Med. Journal*.

**THE PHONOGRAPH IN MEDICINE.**—The applicability of the phonograph to the record and demonstration of defects in speech has been well illustrated during the past week at the Royal Medical and Chirurgical Society and at the Hunterian Society. At the first named Dr. Hale White and Mr. Golding-Bird were enabled by means of this instrument to allow the Fellows present to hear the curiously defective speech of two children, and to contrast this with the improvement effected by treatment, for the subjects were present, and after the phonograph had given their past utterances, their present speech was demonstrated *vivâ voce*. The papers read by the above gentlemen and that by Dr. F. Taylor led to an instructive debate, which was further illustrated by some marked cases introduced by Dr. Hadden. The

outcome seemed to be that these defects in articulation are probably of central origin, and not due to any mechanical interference with the organs of speech. Whether, as suggested by Dr. Langdon Down and Mr. Spencer Watson, the defect was primarily one of audition is a question certainly worthy of consideration. Another point raised was whether the defect should be considered one of speech or language, and some exception was taken by Drs. Taylor, Pye-Smith, and others, to the use of the term "idioglossia," which, however, was ably defended by Dr. Hale White. The other phonographic demonstration at the Hunterian Society was by Dr. Hughlings Jackson, who thus reproduced the characteristic speech of a subject of cerebro-spinal sclerosis. There can be little question that the phonograph will ultimately prove very useful, especially in the preservation of certain anomalies of articulation, and its further extension to other sound phenomena in the range of clinical medicine may be justifiably hoped for.—*London Lancet*.

**THOKA-LOSI.**—It may be remembered that a short account of an extraordinary mutilation practiced by certain aboriginal tribes of the northern part of Australia was published in the *British Medical Journal* last year. Dr. Bolton G. Corney, chief medical officer of Fiji, has described in the *Transactions of the Australasian Association for the Advancement of Science* for 1890, a similar mutilation practiced by Fijians, especially in the central and western provinces, where the admixture with the Tongan race is least. A bougie made from the twig of the tree called by the natives *losilosi* is passed down the urethra as far as the membranous portion, and an incision about an inch in length is made down upon it with a rude knife formed from a sharp shell, a slip of bamboo, or, where such a civilized implement can be obtained, with a piece of broken glass bottle. The operation is called *thoka-losi*—*losi*-piercing. It does not appear to be performed as a religious rite, and Dr. Corney does not believe that it is intended to render the man sterile, which has been asserted to be the object of the Australian mutilation. On the contrary, it would seem to be used merely as a method of treat-

ing such painful affections as rheumatism, catarrhal fever, pneumonia, and pleurisy, under the idea that by incising a dependent portion of the trunk relief will be given to the accumulation of blood, which is supposed to have occurred. This view appears to be confirmed by the existence of another form of mutilation termed *targa-ngalengale*; it consists in incising the urethra from the meatus to a point just behind the frenum preputii, severing the artery; after this as much as half a pint of blood may be lost, so that the operation is evidently a primitive kind of venesection. Dr. Corney states that after the graver mutilation produced by thoka-losi the wound soon heals, and perineal fissure seldom or never results.—*British Medical Journal*.

A MEDICAL HAT.—Certain medical enthusiastic gentlemen have proposed that doctors distinguish themselves by wearing an olive-green button. An English doctor suggests in the *Lancet* that a special hat be adopted, and the suggestion is warmly received by a colleague, who writes: "It seems to me that the suggestion of your correspondent in to-day's issue, that medical men should wear a distinguishing hat, is one which commends itself to everybody. I would, however, suggest that as conspicuousness seems to be an object of your correspondent, it is a pity to adopt a hat with a low crown. Why not have one with a decided length of cylinder—let us say three feet long? It would be so readily discerned at a distance. Further, in order to render the doctor still more easily recognized, I would propose to have the tile painted sky-blue and varnished, or decorated in any other manner to suit the wearer's taste, after the style of the gentlemen of the ring or the race course. And while on this subject, why limit oneself to a hat? A fancy dress or a Pickwickian costume would look picturesque, and, I am sure, would not fail to attract the attention of strangers and others who might be requiring the services of a medical man. The subject is one that is capable of vast extension, and I doubt not would be readily adopted if properly brought to the notice of the leading members of the profession.—*Medical Record*.

THE DRINK BILL FOR 1890.—It is appalling to find that the drink bill of 1890 amounts to £139,495,470, an increase of £7,282,194 over the sum of the previous year, all common sense and medical science notwithstanding. It is said to be equal to one twelfth of the estimated income of all persons, to one fifth of the national debt, and to be eight times more than the income of all the Christian churches. It is not our business to moralize on this expenditure. To us it means so much cirrhosis, Bright's disease, gout, rheumatism, insanity, etc., disabling employment, taking the pleasure out of the life of families, and bread out of the mouths of children. The drink bill for last year is larger than for any year but that of 1878, when it was more than £142,000,000.—*London Lancet*.

THE largest dose of tuberculin yet administered to a human being is four hundred milligrams. It was given by mistake to a patient who should have received only forty milligrams. The patient had phthisis complicated by intestinal tuberculosis, and had been under treatment for some time. The symptoms following the injection of this excessive dose were merely those of ordinary reaction of moderate intensity. Dr. Teleky, who reported the case at the last meeting of the Vienna Medical Society, stated that the reason why more severe symptoms were not observed was doubtless due to the fact of personal idiosyncrasy. The patient had never responded to the previous injections by high reaction temperatures, or other violent symptoms, and had developed considerable tolerance to the lymph. The next highest dose hitherto employed was that of two hundred and fifty milligrams, which Dr. Koch used on his own person. In Dr. Teleky's case the physical signs of the patient were not materially altered by the enormous dose of lymph administered.—*Medical Record*.

CHOLERA IN THE RUSSIAN NORTH PACIFIC. Cholera is still causing great ravages at Vladivostock on the Russian North Pacific coast, the Mansas and the Koreans being the chief victims. There seems to be an utter disregard of sanitary precautions, while such abuses as the casting of the dead into the bay still go on.



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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### PRESENT STATUS OF THE KOCH LYMPH TREATMENT.\*

BY T. B. GREENLEY, M.D.

In reading the address of Prof. Koch at the late meeting of the International Medical Congress, the profession was induced to think and hope that a remedial agent was on the eve of becoming known to the medical world; and when we received his November circular, stating that he was then experimenting with his lymph, and that he felt satisfied it was a remedy against tuberculosis in its various stages, and especially lupus and the varieties of that disease termed surgical, as well as phthisis in its earlier stages, our hopes and expectations were greatly raised. In this circular he also announced its great importance as a diagnostic agent in determining tuberculosis from any other disease. These sanguine hopes were justified on account of the high scientific attainments of the author, and were still more greatly intensified by the exaggerated reports of some of his friends and admirers at Berlin.

It was thought strange by most of the profession that Prof. Koch deferred so long in making known the nature of his lymph, and many censured him severely for using a secret remedy; but under the circumstances I think he was justified in withholding it for the reasons he assigned, to wit, that by its promiscuous and incautious use more harm might result than good.

Thus withholding the character and nature of its ingredients, coupled with the continued flattering reports of its great virtues from Berlin, he further intensified the excitement and expectations both of the profession and the people. Not being able to either know of the nature of the remedy or get any specimens of it, many physicians of this country as well as of Europe flocked to Berlin to learn what they could of the treatment, and also to possess themselves, if possible, of some of the so-called precious lymph. Many tuberculous patients also went to the city for treatment. The excitement seemed to be almost world-wide.

In these days of wondrous advancements in the various branches of science, the arts, and mechanism, no wonder such an announcement from such a source as the discovery of a remedy for the greatest scourge of the human race should cause great hope and high expectations. In these the writer participated until the character of the remedy was made known in January. When the elements of the lymph were announced by its author and the manner of its production given, I at once lost all faith in its efficacy as a remedial agent for tuberculosis. In making this statement it will of course be expected I shall give my reasons for so thinking.

In the first place we find the lymph consists in part of the principle regarded as the cause of tubercular disease, to wit, the cultured tubercular bacilli. This, of course, is modified by passing through the guinea-pig, and its product being mixed with fifty per cent of glycerine. We have no account of the cause of any disease, either in its pure state or modified form, acting as a remedy against a disease of its own production. In fact, I recollect only one instance wherein it has been tried. Over twenty years ago a doctor of Copenhagen, whose name I have

\*Read at the April meeting of the Hardin County Medical Society.

forgotten, experimented with syphilitic virus as a remedy against syphilis, but it did not prove to be a success, and was soon abandoned. So far all successful experimentations with virus in a modified form have been used as prophylactics and not as remedies.

We all know very well that cow-pox or vaccine matter will not cause smallpox, or the medulla of a rabid animal modified by passing through the rabbit cause hydrophobia. All of Pasteur's experiments have been made in the way of prophylaxis, and not as remedial agents.

I have no doubt that it was the confounding of the prophylactic with the remedy that caused many able men to hope for great results from the use of the lymph, even after its nature was made known. This confidence may, in part, have been engendered by the great renown of the author. It occurs to me that if any men should have faith in the remedial virtues of Koch's lymph, it would be our friends, the homeopaths, on the principle *similia similibus curantur*.

But, theories aside, as it is said one fact is worth a dozen theories, let us observe the results of the lymph treatment now after several months of its use.

Virchow, the great pathologist, has treated many cases, and made, up to January, some twenty-eight autopsies of those who died while under the lymph treatment. In his report he issues a note of warning against its use in advanced stages of tuberculosis. He found evidence of the disease having been set up in other and distant localities from its original seat. He accounts for this result by the diseased structure becoming necrosed and carried by means of the circulation to other parts. He also advises it not to be used in tubercular meningitis. He thought some favorable results were obtained by its use in lupus and in cases of incipient phthisis, but could not say that any cases had been cured.

Dr. Amann, of Davos, has treated one hundred and ninety-eight cases of phthisis since November. He finds that in seventy per cent the expectoration and bacilli were greatly increased. He does not give any detailed results.

Dr. Kishkin, of Moscow, reports seven cases of phthisis treated with the lymph. In all the

cases the symptoms were quite distinct, but not severe. In five no pyrexia existed; in two, slight fever. After treatment percussion phenomena remained unaltered. The auscultatory signs in two were not changed. In two the râles somewhat diminished; in one they disappeared almost completely; in one entirely, and in one they disappeared from their former situation to appear in another. Cough, expectoration, and the number of bacilli in the sputum showed no alteration in two cases, while in the remaining five they decreased. The weight in four cases increased, but in three fell somewhat. Of the whole of the seven cases, four slightly improved.

Dr. Lominsky, of Kieff, reports ten cases of phthisis in which he tried the lymph, injecting from one to six milligrams every other day. In one of these cases large cavities were present, the remainder presenting either incipient symptoms or only slight destruction of tissue. The reaction, when present, was accompanied by oppression about the chest, increased dyspnea and cough, and sometimes hemoptysis, the symptoms being in some so intense that the patients declined further treatment. In one patient albuminuria supervened. Dr. L. describes a case of faucial, laryngeal, and pulmonary tuberculosis, in which the following reaction was observed: Before the treatment the faucial changes were limited to considerable congestion of the pillars, with two white patches on the left one. Four injections were given in the course of a week, the dose being on the first occasion one milligram, and on the three subsequent two milligrams. Shortly after the first injection the congestion ceased and the tissues became infiltrated, while there gradually appeared numberless grayish nodules which rapidly coalesced, broke down, and formed ulcers till the whole fauces and sides of the pharynx were transformed into a single extensive ulcerated surface covered with a yellowish-gray coat. At the same time the faucal and laryngeal pain became aggravated to such a degree that the patient almost ceased to take food, while his subjective state grew worse.

Dr. Borgherini, of Padua, has treated fourteen cases of tuberculosis of the internal organs and two cases of lupus. The injections were



made every second day, from one to two milligrams at a time, the largest being nine milligrams. In two cases in which fever did not previously exist, the pyrexia excited continued eight days after the last injection. He sums up his results as follows: In four cases in which the disease was mild there was some slight favorable change in the physical condition of the lung and in the general condition. Other factors, such as good nourishment, careful hygiene, etc., may have contributed to this. In the other cases the morbid process was not modified in any way by the treatment. With regard to the lupus cases, in one, a girl aged eight years, after treatment for about a month the local condition was somewhat improved, but the nodules could still be seen as numerous as before the injections were begun. In the other, a woman in whom the disease was of fifteen years' standing, the injections did some good, but the reactions were so severe that the treatment could not be fully carried out.

At a late meeting at Berlin Prof. Virchow made a further report of autopsies confirming previous observations.

Flatau reported a case of laryngeal tuberculosis that at first improved, but later developed additional tubercles on the vocal cords.

Dr. Grabower exhibited some cases wherein fresh miliary nodules in laryngeal cases supervened, but regarded it as an indication that the treatment should be continued.

Dr. Jolly directed attention to the mental disturbances that occasionally resulted from the use of the lymph. He cited several cases wherein mental delusions supervened, when it became necessary to send the patients to the asylum.

Dr. Henoch had treated twenty children with pulmonary tuberculosis with unfavorable results. All the children grew worse under the injections. He commenced with 1 mgr. He concludes that children are not fit subjects for such treatment. He expresses the view that it causes rapid extension of the disease.

Furbinger, out of one hundred patients reports forty six who have been more than two months under treatment. Of these, three no longer present the characteristic symptoms, fifteen have been distinctly improved, nine are

unimproved, five have become worse, and seven have died.

Prof. Pribram reports sixty cases under treatment during two months. Of these, three, he thinks, may be considered as cured. He also notes several unfavorable results; in one dangerous hemoptysis, and in another a rapid extension of the tubercular process that was fatal in eighteen days.

Prof. Fraenkel, Prof. Koch's right-hand man, still contends the lymph possesses curative virtues. He has extolled it from the first, but reports no cases.

Dr. Remond has witnessed no good results from its use. He assigns as a reason for discontinuing it that it has not cured a single case, but has already caused the death of more than twenty patients. He failed to get any reaction in fourteen cases of well-developed tuberculosis.

There are but few favorable reports from Paris. A committee of physicians and surgeons has been appointed to investigate and report on the lymph treatment. The Paris Medical of January 10th, says the lymph plan of treatment will soon be forgotten and become a thing of the past. M. Leon Petit gives it as his opinion that Koch's lymph should be relegated to the laboratory until its range of action can be properly verified.

There are no definite reports from the London hospitals. The physicians seem to be quite conservative in regard to the matter.

Dr. Bampton speaks in a very doubtful way respecting its virtues as a remedy, but is inclined to award Dr. Koch credit for his investigations in this direction.

In this country the reports of the treatment are not very favorable. Dr. Solis-Cohen, in a recent lecture summing up the results of the treatment, said that its use was attended with a great deal of danger; that in the incipient stages of pulmonary phthisis it was not needed, as other treatment was much better and safer; that in advanced cases it would do great injury by extending the disease and destroying the patient; that in proper cases of external tuberculosis, as in lupus or joint disease, it might be cautiously administered.

Dr. Simon Bauch, of New York, writes, that after an experience of six weeks in the

treatment of over thirty cases of tuberculosis he has not evidence in a single one of a tendency to cure.

Dr. Carl von Ruck, of Asheville, N. C., reports twenty-two cases of pulmonary tuberculosis and one case of lupus treated since December. This report was made to the Buncombe County Society, March 2d. He concludes that great benefit, in every particular, was derived by the patients in the early stage of the disease. They increased in weight, with improvement in all the objective as well as subjective symptoms. In four cases the symptoms have entirely disappeared, the bacilli not being present in some of them and being few in the others. The lupus case also improved.

Dr. von Ruck attributed his success mainly to the manner of exhibiting the remedy. He is of the opinion that too large doses have been used to commence with. He begins its use with one half a milligram, and increases by that quantity every second or third day, and then only when he is satisfied that to the last two doses no general or local reaction has occurred. In the event reaction has taken place he recurs to the smaller doses. He thinks much more will be effected where no reaction results. This theory is different from any yet advanced in regard to the use of the lymph. All other experimenters look for and expect reaction in order to derive favorable results.

In his report the doctor admits that much of the improvement he speaks of may be due to the locality and the mode of general management in his institution, and says that a year ago there was not a case on hand but was in a state of improvement.

This is the most favorable report of the lymph treatment yet made in this country, although he does not say there is a positive cure.

I have given only a partial synopsis of the reports of the treatment of tuberculosis by tuberculin, but it can be easily seen that both in this country and in Europe the great hopes at first excited in its favor have resulted in disappointment.

Prof. Koch and his so-called discoveries have been more written and talked about than any one man or subject within the last hundred years. Had almost any other man announced

such a theory as the lymph cure, not half as much would have been written or said about it. It should serve as a warning to members of the profession not to take the *dicta* of any man to be true simply because he may stand high in the profession. At least we should not run wild about it. The late Bergeon and Brown-Séquard fads should have afforded us sufficient caution in this particular. We must not take a mythical view of remedial agents and believe they act in some mysterious way, as do votaries of Voodooism, who have faith in charms and incantations.

It seem to be a great mystery with many how Koch's lymph reacts on tuberculous tissue. They attribute it to what they call elective affinity. I think it can be easily explained on the theory of obstruction to the circulation. When the poison is injected into the circulation reactive fever ensues, and for the time being the blood is obstructed at the diseased locality, a state of congestion supervenes, and if this condition is continued sufficiently long necrosis and sloughing will follow. This result is due to increased activity of the heart and arteries, and the necrosis and sloughing are due to weakened vitality of the parts. This condition of things might be illustrated by a case of anthrax, a contusion, or even a boil. At these points the circulation meets with resistance, congestion ensues, and either abscess or gangrene with sloughing results. We also have the same phenomena in phlegmonous erysipelas. In fact it is an every day occurrence in tubercular and cancerous tumors.

In Dr. Koch's November circular he affirms that one of the great advantages of the lymph would be its diagnostic value in distinguishing tubercular disease from all others, as no reaction would ensue except in that special trouble. But it seems that this statement was an error, as reaction has resulted from its use in various other maladies, as well as where no disease existed. And in many cases of well pronounced tuberculosis it has exerted no reaction effect whatever.

Within the last decade there have been some half dozen or more plans inaugurated for the treatment of consumption, but time will permit me only to simply enumerate them.



We had the cabinet treatment, the inhalation of antiseptics, hot-air breathing, the Bergeon method or inflation of the bowels with sulphurated hydrogen gas, the iodine treatment, and tuberculin injections.

And now we have lately instituted a plan by Dr. Roussel, of Paris, which, so far, seems to be more successful than all others. He attends strictly to the hygienic environment of the patients, proper alimentation, with due amount of exercise in the open air; and by way of medication uses simply injections, subcutaneously, of eucalyptol. He has made, so far, the most favorable report of any one practicing a new plan of treatment.

Dr. J. Blake White, of New York, is now experimenting with injections, hypodermically, of chloride of gold and iodide of manganese, given in one-per-cent solution of carbolic acid, and so far reports very favorably. What other means he adopts as adjuncts to this treatment he has not stated, but it is presumed he gives his patients the advantage of proper hygiene, alimentation, exercise, etc.

Dr. Bruce, of the "House of Rest" for consumptives, at New York, is also using a new plan of treatment. He administers hypodermically aniline and sterilized oil in increasing doses. He makes very favorable reports of his procedure.

Dr. Liebrich, of Berlin, is now using hypodermically the cantharidate of potash against tuberculosis. He has made no reports, but is favorably impressed with his experiments.

Drs. Shurley and Gibbes, of Detroit, are also experimenting in the same line, and promise to report their results at an early day.

Dr. Ouchterlony, of Louisville, while in Northern Europe last summer learned still of another plan of treating consumption. He, however, only reports one case, which he regards as about well. For his recipe see Practitioner and News, March 14, 1891.

There are others engaged in this line of treatment whose names I do not at present recollect.

As a rule it is premature to base a calculation of permanent results on the first reports of these new plans of treatment.

It is a common thing for a patient of this class to improve for a while, if you take him

out of unsanitary surrounding, where he has lacked the necessary alimentation and other essentials, and put him in a healthy locality with a due amount of proper nourishment and exercise in the open air, together with the instillation of hope of getting well by a new plan of treatment. Those who have seen many cases of consumption are familiar with the fact that under ordinary treatment patients will frequently improve for a while, inducing one to believe they are getting well.

Since the genius for experiments in search of a remedy for tuberculosis has been so thoroughly awakened by the furore of excitement caused by Koch's lymph, we may expect proposed plans and remedies, *id genus omne*, soon to fill medical journals and attract professional and public attention for some time to come.

WEST POINT, KY.

## TETANY.\*

BY E. H. SMALL, M. D.

On November 29, 1890, I was called to see M. B., a fat, healthy looking, breast-fed baby boy, aged eleven months. His hands and feet were much swollen, edematous, and of a cyanotic tinge. His mother said that they had been "spotted," that is, ecchymotic, before I had come. The fingers were strongly flexed at the metacarpo-phalangeal joints, while the phalangeal joints were as strongly extended. The thumbs were adducted and flexed. The feet were extended at the ankles as in talipes equinus, while the toes were strongly flexed. Attempts to straighten out these contractions caused great pain. The mother said that at first the child cried a good deal, and that his hands and feet were tender and painful. So much were the hands and feet, particularly the dorsal surface, swollen, that I suspected nephritis. The urine, however, contained no albumen. The child had always been strong and healthy, having had no other sickness.

Two days before (Thanksgiving) the child had been given some turkey and cranberries to eat, which had caused indigestion. When I called he had had no satisfactory movement of

\*Read before the Alleghany County Medical Society, March 1, 1891.

the bowels for some time. I gave him two half-grain doses of calomel one hour apart, and twenty drops of the elixir of bromide of potassium four times daily, and told the mother to rub his hands and feet with alcohol and water. The next day he was much better. I directed hot fomentations to be applied to the hands and feet instead of the rubbing with alcohol and water. In a week the child was about as well as usual.

Four weeks before his gums had been scored by another doctor. A few days before my visit the two first teeth had appeared, that is, at eleven months. The anterior fontanelle was larger than normal for his age, and the costochondrial articulations were rather more prominent than normal. He has an older brother and sister who are perfectly healthy.

When I first saw this case I thought it to be one of tetany, and its course and termination have proved it to have been such. I had never before seen this disease in a child, but had seen one case in Vienna in a pregnant woman.

Although this disease has doubtless always existed, and although it was described as far back as 1831 by a Frenchman, M. Dance, as occurring in an adult, and in 1832 by another Frenchman, M. Tonnele, as a new convulsive disease of childhood, yet it is but seldom mentioned in the more common medical text-books. The name tetany was first given to it by Dr. Corvisart, in 1851. Dunglison's Dictionary, 1874, speaks of "*Tetanilla*," diminutive of *tetanus*, saying that this disease is also called tetany.

Dr. Smith, of New York, defines it as "a disease in which there is a tonic contraction of the muscles, commonly those of the extremities, but sometimes also those of the face or trunk, produced by causes external to the nervous system, and usually of temporary duration." This definition shuts out true muscular contractions arising from disease of the brain or spinal cord, in which the contractions are both but a symptom and not the disease itself. Henoeh describes it under the name of "*Idiopathischen contracturen*," and regards it as a kind of abortive form of convulsions. Dr. Cherdle, of London, says, "Laryngismus, tetany, and general

convulsions are the positive, comparative, and superlative of the convulsive state in childhood."

*Causes.* Cases are recorded between the ages of six months and sixty-one years. Most cases occur in infancy and childhood; more in males than in females. The most common cause seems to be disorders of the digestive system, as diarrhea, habitual constipation, worms, and dentition. Charles Warrington Earle, of Chicago, gives a case of a healthy girl two and a half years old, in whom tetany occurred on the day after she had eaten heartily of fried potatoes. Perhaps my case was caused by the turkey and cranberry sauce of Thanksgiving, two days before.

It may arise in persons who are in poor health from other diseases, as pneumonia, bronchitis, cholera, typhoid fever, and dysentery. Exposure to wet and cold has seemed to cause it. Hence some think it a rheumatic affection. Erb says, "Many physicians have regarded it as an exquisite example of rheumatic disease. In adults, commencing puberty, pregnancy as in the case I saw in Vienna, and nursing, may cause it. Rachitis is also regarded as a cause, which may hold in my case, on account of the delayed dentition, large size of fontanelle, and enlarged articulations.

*Symptoms.* In patients old enough to describe their symptoms, tetany begins with pain in the head and an uneasy, tingling, burning sensation in the limbs. In children the objective symptoms are those first noticed. The peculiar shape of the hands and feet, their rigidity, and pain on pressure are the commonest symptoms. Generally the fingers and toes are flexed on the palms and soles, occasionally extended. At times the joints of the hands and feet are also affected, or the elbow-joint, so that the forearm appears flexed upon the humerus, the hands upon the forearm, and the foot upward or else toward the sole. The thighs may be adducted or flexed, the legs extended or flexed, and the feet extended as in talipes equinus. The contractions are always bilateral and symmetrical. Attempts to straighten out the contractions cause pain. Edema, with a cyanotic tinge of the back of the hands and feet, and occasionally ecchymoses, pro-



duced, according to Henoch, by the pressure of the contracted muscles on the intermuscular veins, is oftentimes present. In severe cases the muscles of the trunk and head may be affected, but this is rare in children. Trousseau's sign (compression of the artery and nerve supplying the contracted muscles increasing the contractions) can be sometimes observed. The electrical excitability of the nerve supplying the affected muscles is increased, as is also the patellar reflex.

*Diagnosis.* This may be made out by the peculiar grouping of the symptoms, the characteristic position of the extremities, and the absence of cerebral and general disturbances. Tetanus neonatorum and organic disease of the brain and spinal cord are the principal diseases with which it may be confounded. Tetanus generally occurs within a few days after birth, almost never after the first month; tetany is very rare under the age of one month. In tetanus the muscles of mastication are early affected; in tetany the contractions begin in the extremities, and the muscles of mastication are never, or only in the last stages, affected. In tetanus the symptoms tend rapidly to become worse and worse, generally ending in death; in tetany, as a rule, the child is soon well. Tetanus is in some way connected with injury to the umbilicus or umbilical cord; in tetany trauma has nothing to do with the case. In organic diseases of the brain the contractions are usually limited to one side, with other symptoms of brain involvement; in tetany the contractions are bilateral.

*Prognosis.* In children tetany, when uncomplicated by grave disease causing it, almost always ends in recovery, though it may recur. The duration is from a few days to several weeks or months—indefinite.

*Pathology.* Since tetany in children is so rarely fatal, and then usually from the complicating or causative disease, but few autopsies have been made, and in these no lesions have been found which seem to bear a causal relation to the disease. Herz says that clinical phenomena indicate that the disease is due to anemia of the cord.

*Treatment.* When the cause is known, especially when from diseases of the digestive

system, its removal will soon be followed by the disappearance of the disease. Bromide of potassium, in doses according to age, should be used. Chloral and Calabar bean are recommended. Envelop the hands and feet in hot fomentations, or use massage with alcohol and water. A child of fifteen months recovered in one week on gr.  $\frac{1}{4}$  zinc sulphate and gr.  $\frac{1}{192}$  atropia sulphate, thrice daily. This is all that is necessary in children. In adults, cannabis indica and morphia hypodermically have been used with good results.

PITTSBURGH, PA.

### THE PRESENCE OF URETHANE IN THE URINE IN BRIGHT'S DISEASE.

BY C. J. RADEMAKER, M. D.

In examinations of large quantities of albuminous urine I have always met with a crystalline organic compound that was soluble in water, ether, chloroform, alcohol, and benzol, and almost insoluble in petroleum ether. This organic compound differs from all the constituents of normal urine. This compound can be readily isolated by the following process: Evaporate several liters of albuminous urine to dryness on a water bath, and extract the residue with 98 per cent alcohol and filter. Allow the alcoholic solution to evaporate at a low temperature. Treat the oily residue with dilute sulphuric acid and extract with ether; allow the ether to evaporate spontaneously. The residue contains urethane in an impure state. Dissolve the residue in distilled water, and filter from the oily matter. Treat the filtrate with carbonate of potash to an alkaline reaction and again extract with ether, the ether allowed to evaporate and the residue placed in an exsiccator over sulphuric acid, when gradually crystals in the form of plates separate. These crystals are dissolved in distilled water, and the solution treated with a solution of subacetate of lead, the excess of lead being removed with carbonate of soda and again extracted with ether. If now this ethereal solution is allowed to evaporate spontaneously, it leaves urethane in a pure state. If a solution of these crystals is boiled with NaOH, ammonia is evolved, showing the presence of nitrogen.

If this alkaline solution is treated with an acid  $\text{CO}_2$  is evolved.

ANALYSIS OF SUBSTANCE DRIED IN AN EXSICCATOR  
OVER SULPHURIC ACID.

0.1047 gram of substance gave 0.1537 of  $\text{CO}_2$  and 0.0735  $\text{H}_2\text{O}$ .

Which equals.....40.00 per cent C  
and.....7.83 " " H  
Nitrogen, by Kjeldahl's process.....14.90 " " N  
Urethane ( $\text{C}_3\text{H}_7\text{NO}_2$ ).

REQUIRES	FOUND.
C = 40.11 per cent;	C = 40.00 per cent.
H = 7.86 " "	H = 7.83 " "
N = 15.70 " "	N = 14.90 " "

If a little of this substance was dissolved in distilled water and the solution treated with a solution of carbonate of soda and a few scales of iodine and then heated, the smell of iodoform was produced. This solution, upon cooling, deposited crystals of iodoform. If part of the crystals are treated with solution of ammonia, heated in a closed tube, neutralized with dilute sulphuric acid, and then submitted to distillation over a water bath, the distillate gave a distinct reaction for alcohol, with the iodoform test and chromic acid reaction, which is explained by the following equation:



These reactions, and the ultimate analysis conclusively prove that this substance is identical with urethane.

As urethane is formed by the action of alcohol upon urea when heated (as the following equation will explain),



I thought it best to treat normal urine the same way that I had treated the albuminous urine, but not a trace of urethane was formed; however, if the alcoholic extract of normal urine was evaporated at a high temperature, urethane was always formed.

Urethane is a powerful narcotic, and I advance the theory that to this substance the so-called "uremic poisoning" in Bright's disease is due.

LOUISVILLE.

ILLINOIS STATE MEDICAL SOCIETY, John P. Mathews, Carlinville, President; D. W. Graham, Chicago, Secretary. This Society will meet at Springfield on May 19th inst.

## Societies.

### ALLEGHANY COUNTY MEDICAL SOCIETY.

Stated Meeting, March 17, 1891, T. D. Davis, M.D., President, in the chair.

Dr. E. H. Small read a paper on Tetany. (See page 293.)

#### DISCUSSION.

Dr. Lange: I once saw tetany follow diphtheria at the time paralysis usually follows. The description Dr. Small has given of his case fits mine exactly: tonic contractions of the muscle, lasting in my case ten days. The dorso-cervical muscles were not involved in my case, neither were the muscles of the lower jaw, and the clinical picture as a whole is different from tetanus. At that time I had not been enlightened by Dr. Small's researches, and ascribed this to some obscure nervous affection. I am glad to have heard Dr. Small's pathology, and merely mention my case as his etiology did not include diphtheria. Tetany in the infant is not a very rare disease; it is, however, in the adult. I do not remember having seen it in an adult. The symptoms given by the doctor correspond to the symptoms in my case. These cases generally recover without treatment.

Dr. Green: At the present time I have in charge a case or two of tetany, and one has been going on a full week. In the first instance, when I was called to see it, they reported that the child had convulsions. The child is nineteen months old. There were no convulsions and no indications of convulsions having taken place—none of the usual symptoms that follow convulsions. I did not discover any peculiarity at that time in regard to the muscular contractions. I saw the case again in two days; at that time the discoloration of the hands and feet was well marked. Very tender on pressure, a case that might well be mistaken for rheumatism. The general condition of this child when I saw her was slight congestion of the lungs with slight bronchitis, and I discovered afterward that there was some derangement of the stomach. I used an injection of warm water, and when the matter had passed from the bowels there



was a considerable number of pieces of potato that had been fried before being taken into the stomach. I think my case corresponds almost exactly with the case that Dr. Small has described. On my first visit I regarded it as tetany, although I was not able to make a diagnosis. The case was well marked latterly.

Dr. Rigg: I would like to ask a question: Whether the doctor has observed any special contraction of the muscles with reference to the epidemic that has been prevailing for the last year or two? I refer to the epidemic called *la grippe*. There has been in my hands quite a good deal of contraction of the muscles, especially of the limbs, so much so that persons have been unable to relax themselves, and would generally require a quarter of a grain of morphine; and I have had to repeat that two or three times in an evening before the muscles would relax so that the patient could rest. I was very much pleased with the doctor's paper, and the question came up in mind whether there might be some connection between tetany and the influenza of which I speak.

Dr. Ayres: This is certainly an uncommon disease. I have never seen a typical case of it. The cases of Dr. Rigg are not due to tetany; they are doubtless of a rheumatic character, caused by the cold or influenza, and possibly Dr. Green's case is similar. In one respect the doctor's does not quite agree with the typical cases, and that is that it was of brief duration, about a week if I remember aright. Tetany is paroxysmal, coming and going. If I understand the doctor rightly, his case was just one of tonic contraction, which relaxed and disappeared, and I believe there was no recurrence.

Dr. Stevenson: I think there are a great many diseases that, because they are rare and infrequent, are not much written of or talked about. Now tetany is a disease that has been very clearly before the profession for thirty years, yet the fact that perhaps we do not see this disease and do not hear it talked about makes it seem like something new. Some of the speakers have got the idea that it occurs almost exclusively in childhood. I think I will have to differ from that, for Prof. Trousseau,

when he first discussed the disease, described it as a rheumatic contraction occurring in nursing women. In his hospital he has seen a number of cases occurring in the nursing wards, and he published a description of them. The paper, as I understand it, did not exactly describe the contraction as I understand the disease. This contraction is a spasmodic affair that comes on and may last a few minutes and may last as long as twelve hours, and relax and come again. A contraction that would last twelve hours would be considered one of unusual duration. Now then, the paper, as I understand the question, describes the disease as terminating in a week. This is possible in a mild case, which may terminate in a week and not return, though the rule is to have these contractions repeated frequently during a day or several days, if they are sick long enough, in which the patient will seem well, and the condition will occur and be repeated again and again, and the whole duration of the disease is very frequently several months. I saw a case of this character twenty years ago. It occurred in a pregnant woman. She was ten years married; she had given birth to seven children, and as a result she was very feeble and delicate, worn out, exhausted by her frequently recurring pregnancies; she was all the time either carrying a baby or nursing one during these ten years. In about the sixth month of her pregnancy this condition occurred. She got spasmodic contractions of the toes, and then of the ankles, and by and by it involved two fingers on each hand and the thumb. She would sometimes have these paroxysms come on and last for an hour, and relax for a time, and come again probably for a week; then perhaps for a week or ten days she would be wholly clear of the spasms, then they would recur again, and this condition continued until after she was delivered of her child. I saw another case of tetany in a boy, a colored boy, who lived in a rather destitute condition; the family were exceedingly poor, and lived in a stable simply weatherboarded with no internal lining. They had few bedclothes, and were scarce of food. This boy was driving a wagon and doing chores of different kinds through the town; he was aged about sixteen years. He drove a milk

wagon and was out in very severe weather, and only partially-clothed. I think the privation and the cold he was subjected to at home and outside brought on this tetany. He had contractions of his hands and of his feet, and contraction of the abdominal muscles and the diaphragm, and he died. He had no locked-jaw, he had none of that sensation around the chest that would indicate tetanus; but this spasm of the diaphragm occurred at intervals. He had one or two slight attacks of it on the first day; he had two or three slight attacks of it in the night, and the next morning he had a severe attack of the diaphragm and died.

Dr. Small: As I said in my paper, I do not think this disease is mentioned in the common medical text-books. The most I have read on it I have seen in the last two or three years in the Archives of Pediatrics. I presume that I so easily made out a diagnosis of this case for the reason that, in three numbers of that journal, Dr. Smith, of New York, published a very exhaustive article on the subject, and he had some pictures, one of which is almost precisely like the appearance of my patient when I first saw her. His article is very exhaustive, and it may be that he got it up simply as regards tetany in children; and although this article I mention speaks of it in a child, I think I mentioned in several places in my paper as to the symptoms in adults, although it was written with a view of describing tetany in children. As to duration, the gentlemen seem not to have understood me rightly. I stated it may last a week or a month or indefinitely. As to diphtheria being the cause, as far as I have observed, I have not seen that given as a cause, nor have I seen influenza given.

*Typhoid Fever* was the topic for discussion at this meeting:

Dr. Rigg: Typhoid fever, gastric fever, typhus abdominalis, enteric fever, and infantile remittent fever are a few of the terms used to designate a peculiar continued fever of long duration, usually attended with diarrhea, and characterized by peculiar intestinal lesions, an eruption of small rose spots, and enlargement of the spleen. In common with other continued fevers, typhoid fever is due to the in-

roduction from without of a specific poison into a system more or less pre-disposed to the disease.

The nature and origin of the poison, and the modes in which it is propagated, are questions of interest and importance. Two distinct views have been held with regard to the origin of the poison, one that it is specific in its nature, and derived only from some pre-existing case of the disease. The other, while usually produced in a person suffering from fever, it may also be generated anew by the decomposition of sewage.

It is accepted on all hands that typhoid poison is reproduced in the system during the fever, and that its chief if not exclusive outlet is the intestinal discharges.

There is no evidence that it is conveyed by the breath, perspiration or urine; but while it is in the intestinal discharges it is not as virulent when first voided as after it has been allowed to stand awhile. Warmth, stagnation and seclusion from open air intensify the poison.

There is now very little opposition to the above theory—Murchison, of the older, and Harley, of the more recent writers, excepted. The former supporting the sewage-gas origin, and the latter the effect of derangement of function, he denies the infectious nature of the disease, and holds that a chill or wetting is sufficient to determine congestion and the resulting phenomena of enteric fever. With the above exception, the mind of the profession seems to be almost a unit as to the specific cause of typhoid or enteric fever.

The mode through which the poison may find an entrance to the human body is still a question in the minds of many able investigators. As it stands to-day, we might say the probabilities are in favor of the following in the order in which they are named:

(1) Infected water; (2) infected milk; (3) infected ice; (4) air being infected with the dried spores through dust; (5) digital infection; (6) infected meat. With reference to the first, or water source, there seems to be no limit to the evidence that might be collected were one disposed to spend the time and labor to collect it; we will therefore only refer to a few cases in which that seems to be the cause.



Mr. Charles V. Chapin reports on the epidemic fever in Providence, R. I., in its relation to the public water supply. It was found that the fever had prevailed at Natick, three and one half miles above the pumping station which supplied the reservoir. It was learned that the excrement had been thrown on the river bank. The time between a heavy rain which would wash the excrement into the river and the outbreak was about fifteen to twenty days; deduct from this three days which would be required to get from river to consumers, and we have about twelve to seventeen days as the time of incubation.

This is in accord with the report given by Dr. Taylor, in 1885, to the State Medical Society of the Plymouth epidemic, which was clearly traced to a case in the mountains on the bank of a stream that supplied the reservoirs.

The time which this got into the reservoir was, if I remember correctly, March 26th, and the outbreak April 9th to 15th, at which time it was in full force, also, in accord with a report by myself, in 1884, to the Westmoreland County Medical Society of an outbreak at Alice mines, in which one case was brought to a house where the closet was located just above a spring. About the third week there was a heavy rain, causing the vault to overflow, at which time I went to the superintendent and asked that the spring be closed up, when he informed me that it was the best water on the place, and he could not do it.

After trying to explain to him the reason, and failing, the matter was dropped, and in about seventeen days typhoid fever began to develop. We had in all twenty-four cases; all except one got their water supply from the above spring.

At this time the company ordered the spring closed, and the trouble ceased. Dr. Anderson reports a peculiar teat eruption in the milch-cow in connection with an outbreak of enteric fever among the consumers of the milk at Dundee. There is also a report from Leeds, showing milk to be the probable source of infection. I have been unable to find any well-authenticated cases traceable to ice, but the fact that a low temperature does not destroy

the germ makes it a possible source of infection.

The air may be the source, not so much by carrying the germs themselves as by carrying the particles of dust or other matter that may contain the special poison.

It is impossible for a current of air to detach bacteria from moist surfaces, they must first dry. I think it possible to account for many isolated cases that could not be accounted for in any other way.

As to digital and meat infection, they, in my judgment, are only possible and not likely means of communicating the disease.

As to diagnosis we will say but little, as the disease is too well known to you to justify taking your time, only a few points will then be noted:

The invasion is usually insidious: more or less headache, muscular weakness, general depression, with pains more or less through the body, slight chills, as a rule not severe, loss of appetite, epistaxis, yellowish-white coat on tongue, bowels confined or relaxed—if confined, usually open freely from slight purge—urine high colored and diminished in quantity, pulse and temperature above normal. The patient will have the appearance of more depression than will be accounted for by the temperature or duration of illness, the face is often a very useful guide making an early diagnosis. One very important thing to do is to exclude any local inflammation as a cause of the pyrexia. The abdomen may be tumid with some tenderness of right iliac fossa, but the absence of this does not exclude enteric fever. The gradual and continuous rise in temperature, together with above symptoms and absence of local inflammation, will leave us fairly sure of the character of the trouble. Then, if we get a free yellowish-green stool from slight purge, we may feel sure of our case, the rose spots will soon begin to make their appearance, a short cough is often present, sometimes severe with sibilant râles. If the pulse is much above one hundred per minute you can look for a severe case, if below eighty or ninety most likely a mild one.

Relapses are common in enteric fever; this, if a true relapse, is not simply a return of pyrexia, but a return of all the phenomena of

fever. I have seen the third relapse with all the symptoms well marked, with a period of five to ten days between the ending of one and the beginning of the other.

As to special symptoms and complications, hemorrhage is perhaps the first to attract our attention. This occurs in about eight per cent of cases, usually after the fourteenth day.

Perforation also may occur, and is a very fatal complication.

Peritonitis without perforation may occur, and in typhoid fever may exist without any very great tenderness, but with a good deal of tympanites.

If great tympanites occur early in the disease, say the first week, it is an unfavorable indication. Diarrhea is usually present, though not often hard to control, and if not excessive not especially dangerous. The urine usually contains albumen in the early stage, and by some is looked on as a diagnostic sign. Ehrlich's urinary test is also regarded as of great diagnostic value. This is the characteristic red coloration of the urine, and is made by adding 25 parts of a solution of sulphanilic acid in dilute hydrochloric acid, 1 to 20 to 1 part of a five-per-cent solution of sodium nitrite, and the whole mixed with an equal part of urine.

I have had no experience with this test, and can not speak of its usefulness. Pneumonia is very apt to develop in the later stage if the patient is exposed to any draft. It has been my rule for the past eight years to have the bed so placed that the door would open and shut without a draft passing over the bed. The windows should be just as carefully watched. It cost one man his life to teach me that lesson. Pulmonary gangrene, pleurisy, thrombosis, and embolism may occur in the course of the fever or at its close. Parotitis going on to suppuration occurred once in my hands; there was no fistulous opening left after recovery.

Phlebitis has several times appeared as a sequela to enteric fever. Arteritis is also reported in which the femoral artery was occluded and amputation was necessary.

Sudden death may occur in typhoid fever from bulbar paralysis, capillary hemorrhage in

brain, and from the much used and abused heart failure. There is nothing in the early state of a typhoid patient to indicate that the fever will assume the abortive form; this, however, will most likely become manifest by about the eighth or tenth day. The scope of this paper will not admit of the consideration of either the abortive or irregular forms of typhoid fever. In enteric fever the prognosis should be guarded on account of the long time the case will most likely run, and the risk to some one of the complications; very high temperature or rapid pulse indicates a severe and possibly a dangerous type.

The treatment should be largely symptomatic. The patient should be placed in a large room, well lighted and well ventilated, any unnecessary articles of furniture should be removed. The body should be sponged off night and morning in tepid water; if the skin is hot and dry a little bicarbonate of sodium should be added to the water; if sweating is profuse, a little vinegar. The patient should be handled with care, all traumatism to the abdomen should be dispensed with. Either violent or unnecessary palpation or food that is not in a liquid state. The great tendency of typhoid patients to develop tuberculosis should cause them to be protected from any possible exposure in that line. In the early state a few doses of the mild chloride *q. s.* to empty the bowels and put them in an aseptic condition will be good treatment; this may be given with naphthalin in three or four-grain doses. Naphthalin is said by some to be more of a destroyer of the typhoid bacteria than calomel, but the latter would receive my confidence in the first few days. It lessens the subsequent diarrhea and leaves the bowels in a better and more healthy condition. The statistics show that cases receiving the mild chloride at the onset of the disease run their course in about two days less time than those not receiving the same.

As to the antipyretic treatment, high temperature in any specific fever is an indication of danger, not the cause of it. Temperature is only a part of a specific fever. Subnormal temperature is due, like elevation of temperature, to disorder of the thermotaxic centers.



Perhaps the best antipyretic we have is the cold pack or the spray of cool water as practiced by Hiller and others in sun-stroke.

Antipyrin, antifebrin, and phenacetin should not be used as antipyretics in typhoid fever. It has been my experience also that large doses of quinine given throughout the disease had the effect of prolonging the disease, and I have failed to see any good in any way from its administration.

Carbolic acid and tincture of iodine, resorcine, turpentine, the acids, etc., have all been used with more or less success. The important thing in my mind is to keep the stomach in as good condition as possible, the bowels aseptic, patient quiet and well nourished with liquid food, and you will give your patient the best chance to get well. Complications must be treated as they arise.

#### MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated Meeting, held March 12, 1891.

The 722d regular meeting of the Society was called to order by the president, Dr. David Streett.

Dr. John W. Chambers made some remarks on Appendicitis.

He said appendicitis or typhlitis is a term usually applied to an inflammation in the right iliac region. The appendix vermiformis is ordinarily spoken of as being behind the peritoneum, whereas it is a perfectly free body within the peritoneum and is exceptionally movable. The descriptions as usually given in the text-books are misleading. It is described as lying on the internal iliac muscle, whereas it more frequently lies on the psoas muscle. In some cases it lies behind the cecum. It may or may not have a reflection of the peritoneum, usually it has. It is found on the left side in about two per cent of cases. It was found by Triebes associated with the liver. An inguinal hernia may contain the appendix, as shown by the specimen. (Here Dr. C. exhibited a specimen of an appendix that had been removed from an inguinal hernia.)

Its length is from three to seven inches, and it usually is found to contain fecal matter. The

diagnosis is not easy. We are now in about the position of some of the older doctors, who say that a diagnosis below the diaphragm is simply the weighing of probabilities; the abdominal organs are so movable it is difficult to make a diagnosis. In the lungs, which are fixed, it is easy. The only definite method of diagnosing cases in the abdominal region is to open the abdomen, and then the *post-mortem* will sometimes clear it up. What is usually termed an appendicitis is a localized peritonitis. It begins in most cases as a catarrhal inflammation, usually due to the presence of a foreign body, seeds are supposed to be a frequent cause, but if you examine these "seeds" carefully, you will find many of them are fecal concretions.

Ulceration follows, during which process adhesions take place, pus forms, and an abscess within the peritoneum is the usual result. A simple catarrhal inflammation can hardly explain the constitutional symptoms. In the cases where there are such marked constitutional symptoms, he thought that an abscess had already formed; it may burst into the bowel and get well, or it may burst into the peritoneum and set up a local or general peritonitis.

There is a rare variety, acute gangrenous or perforating appendicitis, where almost the first symptom is a sudden collapse. This form is a surgical disease, and should be treated with the knife promptly. Just when the abdomen should be opened is a question that should be decided on the merits of each individual case; what may be proper to do on the third day in one case would be dangerous in another. There is some doubt whether the doctor with rest and opium does not cure as many cases as the surgeon with his knife.

If an abscess can be recognized through the abdominal walls, it should be opened and drained. This would not be a laparotomy, but is the same as opening an abscess in any other part of the body, as the gluteal region for instance. These cases should not be classed as laparotomies, as by the inflammatory adhesions the abscess is cut off from the peritoneal cavity.

Why it should suddenly perforate in one case and slowly in another is due to the posi-

tion of the foreign body. If the foreign body gets in such a position as to cut off the circulation of the lower part of the appendix it will cause gangrene or perforating appendicitis, as illustrated by the following cases: Last September I was called at 11 P. M. to see a robust, healthy boy, suffering from what was supposed to be cramp colic, with several liquid stools. He had eaten a hearty supper, which made this a probable diagnosis. Some bismuth was given him. The next day his diarrhea had stopped but not the pain; he had a pulse of 120 and wiry. In twelve hours from the time he was taken he was much shocked; a few hours later he was seen by two prominent practitioners in consultation, and he was then intensely shocked, with a subnormal temperature of 96° F. in the rectum. It was decided to open the abdomen, and an incision was made in the right median line; from habit, he (Dr. C.) looked in the typhlytic region and saw a little pus and a black sluffy mass, which proved to be the gangrenous appendix. It was ligated and removed. He died in three hours.

Case two was brought to the City Hospital about two years ago in a state of collapse. He was a carpenter and had shown no signs of illness up to the time of shock. His abdomen rapidly distended, and he died in a few hours.

The *post-mortem* showed acute suppurative appendicitis, due to an orange seed.

Case three shows where the nutrition of the organ not being so absolutely interfered with the progress of the case is slower and recovery is more apt to follow—a woman, who was seen with Dr. Martenet, who will relate the case. She is now getting better. Now we know that, while she may recover, she is liable to recurrent attacks unless a radical operation is done, as recommended by Senn and others who advocate cutting down and removing the offending organ.

Dr. J. F. Martenet said he was called on March 4th, about 10 A. M., to see a lady who was said to have fainted. She had recovered from the faint when he arrived, and she was then suffering with acute pain and general soreness over the abdomen and in the right iliac region particularly. Morphine was given, and at 2 P. M. she was more comfortable; at 6 she was

worse, and as it was about time for her menstrual period, he thought it a case of painful menstruation; more morphine was given. When she was seen the next morning she was menstruating, and he thought her trouble at an end. She was kept on the morphine, and on the 6th she became nauseated from it; she was then given suppositories. There was tumefaction over the right iliac region, and general soreness over the whole abdomen. She was kept under the anodyne effects of the opium, and on the 10th she had a movement of the bowels. The next day saw several operations, they were dark and thin, but contained neither pus nor blood. To-day (12th) she passed pus. She is improving, and after the first movement of the bowels she became more comfortable, and is now doing well. In another case of a four-year-old girl, who had severe pain in the abdomen, the nurse said the right groin was hard, while the rest of the abdomen was soft. Hot poultices were applied to the part, and on the fourth day the case assumed so serious an aspect that he told the family he would probably have to call in a surgeon, but happily the child got better. He mentioned this case because of the youth of the patient.

Dr. George H. Rohé said Dr. Chambers very properly disagrees with some authorities in that a simple catarrh should cause such profound symptoms. There may be a case of acute suppurative appendicitis and no pus be discharged by the bowel, and yet the patient may not present any symptoms whatever, as illustrated in a *post-mortem* he made ten years ago on a woman who died of pneumonia, after being operated on for vesico-vaginal fistula. There was about half a pint of pus encapsulated between the colon and liver. She had no fever and had no symptoms whatever. He believed that death from small collections of pus in this way is rare.

Dr. David Streett said he had seen a *post-mortem* where there was a collection of pus encapsulated between the colon and liver, and when the pus was removed there was a decided depression in the liver due to the pressure of the pus. He is not yet convinced that where there is tumefaction and pain in the right iliac region that these are cases of appen-



dicitis. In all the cases where he has seen this tumefaction, they recovered; and in the cases where there was no doubt of the appendicitis they were all fatal, perforation took place and they died suddenly. He saw a girl, some time ago, who was taken suddenly with acute pain over the whole abdomen; she gave a history of having eaten an orange the day before. She became suddenly and alarmingly ill, and died in a few days. In another case of a girl of thirteen years, who had eaten some dates and had swallowed a seed, she was taken suddenly with pain over the whole abdomen, and died in three or four days. Unfortunately, there were no *post-mortems* in these cases. So that the seeds which were swallowed, not being demonstrated, can only be considered as a probable cause of the appendicitis. Though from the history of the cases there is little doubt of this, he was not yet prepared to turn over all of the cases to the surgeon, except where perforation takes place, then it becomes a surgical case.

Dr. H. T. Rennolds said he saw a case of a boy of fourteen years, who had pain and swelling and tumefaction in the right iliac region. He diagnosed typhlitis, and this diagnosis was confirmed by Dr. Arnold. In six or seven days from the beginning of the attack the boy had a large stool, which gave him immediate and entire relief. A man about twenty-five years old, in the course of two years, had five or six attacks of appendicitis, one or two of which were quite severe. He took a trip abroad, and when in London he was taken with vomiting, and had another attack, which proved fatal in a day or two. At the *post-mortem* the cecum was found to be ruptured and ulcerated.

Dr. Chambers said he was more convinced, the more he heard, that those cases with abdominal tenderness and tumefaction do best without surgical interference; the knife should only be used in those cases where there is perforation. In answer to inquiry, he said he thought that examination by the rectum did not give much information, unless there was marked induration, or where tense abdominal walls over the region may be mistaken for a tumor the rectal examination may be of service.

Dr. David Streett related a case of premature birth of twins, one dead, the other living.

He was called, on March 6th, to see a lady for pains in the abdomen, supposed to be due to cold or something she had eaten. He found her pregnant at about six to six and one half months. On examination she was found to be in labor and the os dilated, and a child was born in about three quarters of an hour. It was still-born, and from its macerated condition it was supposed to be dead about a week. The second child was born alive; it was small, weighing about three pounds; it died on the seventh day. The woman had menstruated last on the 7th of August, and was confined on the 6th of March, one day less than seven months, yet he was of the opinion that the gestation could not have been longer than six and a half months. There was but one placenta, and both cords were attached to it about six inches apart.

J. WM. FUNCK, M. D.,  
Secretary.

## Reviews and Bibliography.

**A Treatise on the Diseases of Infancy and Childhood.** By J. LEWIS SMITH, M. D., Clinical Professor of the Diseases of Children, Bellevue Hospital Medical College, etc. Seventh edition, thoroughly revised. With fifty-one illustrations. 900 pp. Philadelphia: Lea Brothers & Co. 1890.

Already in previous editions the treatise of Dr. Smith on Diseases of Children held position undisputed at the head of its class. No book in any language could dispute with it the title to pre-eminence. Profiting by criticisms, by advance in the knowledge of children's diseases, and by his own maturer thought and more extended observation, this seventh edition has been placed upon a still higher plane than previous ones.

In re-writing, the author has been careful to exclude whatever seemed to him obsolete material, and to condense the text as much as possible, consistent with clearness, so that he considers that the work contains twice as much as former editions, though no more than fifty pages have actually been added. The author quotes briefly and succinctly from a large number of writers, and possibly from some who are

not entitled to be quoted. It is rare, however, that, after referring to numerous writers with their diverse claims and contentions, the author does not, by some well-timed and pointed statement of his own conclusions, guard his readers against the danger of being misled.

The entire work is enriched with the fruits of unwearied research and clear and careful reasoning, which show that neither time nor labor has been spared in bringing it to its present high state of excellence.

But extended comment on a work so well known as this has become through previous editions is quite unnecessary. The verdict of the profession is made up already. A list of works on diseases of children, made up in any country, would have this work at its head, and for the purposes of the great majority of practitioners the list would be complete with this one alone.

D. T. S.

**Transactions of the American Ophthalmological Society.** Twenty-sixth annual meeting. Hartford: Published by the Society. 1890.

We have had occasion several times to refer to the annual transactions of this Society. The present volume contains a number of interesting papers, some of purely theoretical value, others practical. Dr. Noyes' article on the uses of prisms in ophthalmic practice is one of the most practical, and will repay perusal. While we are of the belief that with most ophthalmologists the statement that the external rectus is most often at fault is not borne out by experience, the article as a whole is most excellent. Another article that seems to be of practical importance is one by Dr. Randall on the question, Can Hypermetropia be Healthfully Outgrown? In this he brings strong evidence forward to disprove the statement that hypermetropic children outgrow the defect in refraction. MacNamara a few years ago wrote a most interesting review, in which he stated that in many hypermetropic children the hypermetropia disappears later in life, therefore they should not wear glasses, especially for full correction. Notwithstanding the statistics of Dr. Randall I am forced from practical observation to believe that hypermetropia is frequently outgrown, and therefore I

rarely give full correction in children unless something peculiar demands it, and I have seen hypermetropia lessen from .5D to 1.D in two years each time, the examination having been made under atropia. Several other papers would be of interest in an abstract, but to those wishing to investigate I would recommend a copy of the Transactions.

J. M. R.

**A Text-Book of the Diseases of the Ear.** By Dr. JOSEF GRUBER, Professor of Otolaryngology in the Imperial Royal University of Vienna, etc. Translated from the second German edition by special permission of the author, and edited by EDWARD LANZ and COLEMAN JEWELL. With one hundred and fifty illustrations and seventy colored figures on two lithographic plates. New York: D. Appleton & Co., 1, 3, and 5 Bond Street. 1890.

The thanks of the English-speaking specialist are due to the translators of Prof. Gruber's text-book. To those who have been his students it is a satisfaction to see so excellent a reproduction in English. The book commences with a most elaborate description of the anatomy of the ear and temporal bone—this occupies one hundred and seventeen pages. By a careful reading of this many new ideas are brought to mind and points referred to that one rarely encounters. Following the chapter on anatomy come directions for examining patients suffering from ear trouble. Preceding the chapter on diagnosis and treatment is a general consideration of the pathology of ear trouble, in which he urges a familiar acquaintance with general pathology, for the reason that the ear contains diverse tissue elements, and neighboring diseases exercise great influence upon its functions. Especially is this true of the ear and its association with the nose and throat. Prof. Gruber therefore urges examination of the nose and naso-pharynx in all cases. In relation to the influence of the enlarged tonsils on the function of the eustachian tubes he admits that they become so enlarged as to press directly on the opening of the tubes. This most anatomists refuse to recognize. In the treatment by the air bag it frequently happens that both tubes are inflated when we wish to confine its effect to one ear. Prof. Gruber's suggestion of turning the head far in the direction of



the healthy ear and then inflating is an original one, and since reading the book the reviewer has tried it and found it of unquestionable value. Nothing striking is found in the portion given to the treatment of middle ear disease. Yet the book is of such interest that it well pays a careful reading. It is the work of a master and is presented in an attractive form.

J. M. R.

**Medical Diagnosis**, with Special Reference to Practical Medicine; a Guide to the Knowledge and Discrimination of Diseases. By I. M. DA COSTA, M. D., LL. D. Illustrated with engravings on wood. Seventh edition, revised. 995 pp. Price, \$6. Philadelphia: J. B. Lippincott Company. 1890.

This is an entirely new edition of a work that has for more than twenty years stood *facile princeps* of its class. Other works of great excellence have been written on clinical diagnosis, but none so clear, so full, so graphic, and to be grasped with so little outlay of thought or employment of the imagination as Da Costa. Its worth has been attested by translations into German, French, and Russian, and seven editions called for in our own country show the esteem in which the work is held at home. Indeed it is no disrespect to say that there are thousands of physicians in this country who are not aware that there is any other work on medical diagnosis than Da Costa.

Less attention has been paid to the light shed on comparative symptomatology by advances in bacteriological knowledge than might perhaps have been expected in view of the exacting demands they are now making on medical study; but when one comes to reflect how few are the medical diseases wherein bacteria supply the key to diagnosis, the infrequency with which they are invoked becomes less a matter of surprise.

So helpful a work as this no physician can afford to leave unread, and all the better for him and his patient if again and again he familiarizes himself afresh with its pages.

D. T. S.

THE Medical Society of the State of North Carolina will meet at Asheville, May 26, 27, and 28, 1891.

## Translations.

UNDER THE CHARGE OF I. N. BLOOM, A. B., M. D.,  
Dermatologist, Louisville City Hospital, etc.

BROWN-SÉQUARD'S ELIXIR VERSUS KOCH'S LYMPH.—(*Deutsche Med. Zeit.*, February 23, 1891.) The following was written to the Medical Press from St. Petersburg:

Koch's method never found much favor here, and complaints grew as the experience with it became more extensive. Prof. Manassein often criticised it sharply, and was skeptical from the beginning. According to his statement, all cases of lupus recur, and no physician can claim to have cured a single case. No case of permanent increase in weight is recorded of a tuberculous patient treated with lymph injections. A few physicians speak of an increase of weight of from 250 to 2,500 grams (one half to five pounds), whereas koumiss increases the weight up to 7,000 grams (fifteen pounds).

Uspenski's work on the cure of tuberculosis with Brown-Séquard's injection has aroused considerable interest here. He records eighteen cases which he treated with good results with Brown-Séquard's emulsion. If tincture of iodine is added to the injection, the effect is stronger. In every case of phthisis this combination had a favorable result. The injections are free from danger, and can be borne by the most sensitive. In the beginning there is a decided febrile reaction and general *malaise*, but after the third injection there is little noticeable disturbance. The patient feels decidedly better mentally and physically. Night-sweats disappear, sometimes as early as after the third injection; but as a rule after ten or twelve. The pulmonary progress of the disease seems to be aborted, and the emulsion acts like a specific against the disease. The bacilli disappear, and the sputa become clearer.

Uspenski closes with the statement that he has no doubt that this method of treatment surpasses all others, and he urges others to continue experiments in the same line.

RESECTION OF THE INTESTINE—TWO CASES. (Prof. Hofmohl, *Deutsche Med. Zeit.*, January 19, 1891.) Symptoms of incarceration developed in a young man twenty-four years old who

had a bilateral hernia. These lasted ten days. Immediately after entrance into the hospital herniotomy was performed. When the sac was opened there was found a small amount of fluid and an intensely reddened diverticle of small intestine, in which, on the convex side, was a perforation about two centimeters in diameter. There was no gas or fecal matter. An *anus preternaturalis* was established, and fourteen days later the operation of resection was done. A piece of the intestine eight centimeters long was excised. Union *per primam* followed, with no further disturbance. The question that arises is, how did the loss of substance occur? No microscopic investigation has been made up to the present time, and hence the following seems to be the solution: It is possible that an erosion occurred at some point in the reddened, inflamed intestine, and the perforation occurred at this point from the energetic efforts of the patient at reposition.

CASE 2. A woman who had been operated upon in 1886 by resection for intestinal carcinoma suffered in 1890 (October) with pains in the belly, symptoms of stenosis of the intestine, abdominal inflation, vomiting, and obstipation. These indicated a second operation. Under the cicatrix of the first a small tumor could be felt. On opening the belly a small walnut sized tumor was found. The gut was decidedly stenosed at this point, and above it markedly dilated. In it was found a large number of foreign bodies, consisting of berries and cherry stones. Eight centimeters of intestine were excised and examined microscopically. No trace of carcinoma was found, but a decided cicatricial stricture; nowhere ulceration. What was surprising, however, was the appearance of tubercles in the cicatricial tissue. Tuberculosis had occurred on the site of the former carcinoma. Otherwise the woman showed no signs of phthisis. She does not cough, and is otherwise in good condition. No increased resistance can now be felt at the site of resection.

HYDRASTININE IN METRORRHAGIA.—(Falk, *Journ. de Phar. et de Chir.*) The writer has employed hydrastinine on a certain number of cases of metrorrhagia following endometritis, or brought on by the presence of myomata, but

particularly in cases of congestive dysmenorrhea and excessive menstrual hemorrhages following modifications in the texture of the uterus. Twenty-six patients have been treated, and in all save four cases the results have been excellent, and in general very superior to those of ergotine under similar circumstances. The author uses subcutaneous injections exclusively. He employs a five-per-cent or ten-per-cent solution of hydrastinine. He has given about four hundred injections, and has never seen any local inflammatory reaction produced. In general they produce very little pain, and are borne well by the patients. In cases of excessive menstrual hemorrhage it is well to begin the treatment six or eight days beforehand, injecting daily half of a Pravaz' syringe of a ten-per-cent solution, that is, five centigrams of hydrastinine. When menstruation has begun, a syringe of a ten-per-cent solution should be injected daily until its cessation. When menorrhagia takes an irregular course, the author advises the injection of two centigrams two or three times a week. He employs the following formula:

Chlorohydrate of hydrastinine.....	1.0
Distilled water .....	10.0

For subcutaneous injection, one half to one syringe of a ten-per-cent solution daily.

CHROMIC ACID IN HYPERIDROSIS PEDUM.—(*Journal de Médecine*, June, 1890.) In 1889 the Prussian minister of war ordered experiments to be made with pure chromic acid for the cure of sweat-foot. The results were satisfactory. A cure often resulted from a single application made in this manner: The sole of the foot and the space between the toes were bandaged after applying a layer of absorbent cotton soaked in a five-per-cent solution of chromic acid. The parts thus treated became hard and dry, and the comfort of marching was much increased thereby. If there are lesions of the foot, it is best not to begin the treatment with chromic acid until these are cured. There are no evil after-effects, and of course no ill effects from the suppression of perspiration.

TREATMENT OF THE "RED NOSE."—A red nose is a very painful affection, especially when it attacks females. According to Unna, one



fifth of the cases are due to acne rosacea with vascular dilatation. Very often it stands in direct relation to seborrhea of the hairy skin. This seborrhea should be treated in the usual way. When acne rosacea is the cause, Unna gives fifty centigrams (seven and a half grains) of ichthyol daily internally, and at the same time prescribes lotions of the same substance in watery solution externally. At night, applications of the following paste are of benefit:

Zinc pomade.....	20.0
Rice powder.....	5.0
Sulphur.....	2.0

Unna advises multiple scarifications of the dilated veins after Hebra. This should be repeated two or three times a week. The minute wounds should be covered at once with moist absorbent cotton. In light cases, and as supplementary treatment, he advises repeated washings with ichthyol soap. Only warm water should be used.

**CAFFEINE IN POST-PARTUM HEMORRHAGES.**—(Misrachi, *Journal de Médecine de Paris*.) The author claims that in such cases caffeine acts more actively than ergotine. Where the patients have lost much blood, hesitation is dangerous, and recourse to caffeine should be had at once. He begins by giving in rapid succession three or four Pravaz' syringefuls of the following solution:

Benzoate of soda.....	3.0
Caffeine.....	2.0-2.5
Distilled water .....	6.0

Inject six to ten syringefuls daily, each of which contains from 0.20 to 0.25 grams.

## Abstracts and Selections.

**DIGITALIS AND STRYCHNINE AS CIRCULATORY STIMULANTS.**—Digitalis, caffeine, strophanthus, scoparius, and adonis vernalis constitute a most useful group of agents that exhibit an action upon the circulatory apparatus commonly spoken of as tonic or stimulant; but when the physiological effects of these drugs are considered critically from the standpoint of their application to diseased states, it will be seen that their use is more limited than is generally supposed. The concomitant actions upon parts and functions of the organism other than the heart and circulation possessed by each fre-

quently present a barrier to their employment, even where the circulatory symptoms would seem to indicate their prompt administration. The indications for the use of digitalis in heart affections are clearly understood, but the reasons for and against its use in many cases of a weakened and failing circulation do not appear to be as firmly established. This view of the question, together with strong arguments for the use of strychnine as a circulatory stimulant, form a basis of a valuable paper published by Dr. Bradfute (*New York Medical Journal*, January 10, 1891), who, in the first place, maintains that in the class of constitutional diseases, especially those characterized by a continuous high temperature, accompanied by any of the various forms of degenerative change in the organs and muscular system, digitalis is not the remedy, and where these changes affect markedly the cardiac structure it is conspicuously contra-indicated. The action of the drug upon the muscular fiber is one of stimulation, followed by an increase in its force power; and if the fiber is surrounded by or contains within its substance granules or particles of fatty change, it can be readily seen that the indications are for the relief of overwork, and not to compel it to do what it is already physically incapacitated to perform. For example, in typhoid fever the condition just outlined is always present, and the administration of digitalis in doses sufficient to produce even a slight physiological effect can not fail to do harm; but that this fact is frequently overlooked, and by practitioners of eminence, there is ample evidence. In addition to the ugly action of digitalis upon diseased heart-tissue, its property of contracting the arterioles, causing a rise in the blood-pressure, increases the total amount of cardiac work necessary to be done, which is so injurious as to result sometimes in practically a paralysis of the entire organ, a mishap that has occurred after a sudden change from the recumbent to the erect posture in instances of undue exhibition of the drug where there was no interference by disease with the normal function of the heart fiber. Its influence upon the inhibitory centers also offers an obstacle to its use when the above-mentioned objections may not exist; and on account of this it is well to remember that as a rule, subject to modifications attendant upon exceptional cases, a weak and slow heart is not amenable to the curative effects of digitalis; rather is it a weak and rapid heart that presents the most favorable opportunity for the display of its peculiar action. Phosphorus poisoning, typhus and yellow fevers, atheroma, and fatty heart are affections presenting a pathological anatomy contra-indicating the employment of

digitalis, especially in the last stages of these diseases. Aside from its use in simple heart disease, unless very skillfully handled, digitalis is only effective in the failing circulation of hemorrhage, shock, and certain acute affections, especially when the cardiac movements are very rapid, where the result desired is a bracing up, as it were, of the general circulatory apparatus until nature has time to restore herself. In shock following head injuries, when the heart is slow, nitro-glycerine is the better agent, as it paralyzes the inhibitory centers and dilates the arterioles, thus promoting the activity of the heart and increasing the rapidity of the blood current. But in these instances there are no degenerative changes in the heart muscle to negative violent stimulation of the fiber. In acute phthisis, accompanied by an irritative fever and a rapid and sometimes tumultuous heart, digitalis is often very useful, but it is manifestly unsafe to administer it in large doses. The Harveian lecturer of 1890 calls attention to the independence of the systemic and pulmonary circulations, which opens up a new field for the study of pulmonary therapeutics; and it may be that future experiments and observations may preclude the employment of many of the drugs now used in lung affections; but, under our present knowledge, digitalis is an excellent remedy for the failing heart of continued pulmonary hemorrhage and the gray hepatization stage of pneumonia. In the latter, digitalis does good so long as the heart does not beat below the normal rate; when the pulse drops below 70 some other remedy must be given. In the first and second stages of pneumonia, when active inflammation is going on, digitalis is out of place, as it only causes the heart to pump more blood into an already surcharged area, and can have but little influence over the temperature. In myocarditis, where exudative material is poured out in and around the muscular substance, digitalis adds insult to injury, and the interference with function from disease is only increased.

From these few remarks it can easily be seen that some of the contra-indications that may be present in disease prohibiting the use of the digitalis, or a remedy having a similar action, are congestion and inflammatory obstruction in the pulmonary structure; degenerative changes in the muscular system, including the heart; general interruption of the nutritive processes, with accumulation of serum in the tissue; sudden cardiac failure, and all conditions in which the heart-beats are less than normal. Of course no iron-clad rules can be laid down, but if the drug is given in maladies characterized by any of the above-mentioned lesions, it must be used with great care.

In selecting a remedy to combat a failing circulation, all the structural changes and diminished or lost functions must be accurately studied and the influences resulting therefrom duly considered. Without the intelligence accruing from such a consideration of a given case, it is impossible to apply a proper drug, no matter how well known is its action. A thorough knowledge of the normal physiological state of the patient, the pathological changes that have taken place, and the physiological action of the drug is essential to successful therapeutics, and in no instance is a familiarity with these three points more important than in a case of failing circulation.

In those protracted diseases in which this formidable symptom arises, the general condition of the patient may be summarized as follows: The muscular system is weak, flabby, degenerated, and ill nourished; the nervous system is reflexly disorganized; the nerve conducting paths, chiefly at the periphery, are partially or entirely obstructed, so that tissue sensation and motility are interfered with and vaso motor paresis is marked, thus checking normal physiological change in part or even in places completely; the secretory structures are either exhausted—not functioning—or their products are unfit for use; the circulatory apparatus is devoid of tone and strength, and the total area of blood space is increased, owing to paretic dilatation of the smaller vessels. In such a condition here presented the failing circulation is due not so much to the disease *per se* as to vitiated anatomical structure and physiological function, and the indications for treatment are plain. The prime object to be desired is the restoration of the function of the spinal cord, reflex centers, and nerve-endings. A drug that will do this causes a cessation in the destruction of tissue and less waste, thereby minimizing the drain upon the nutritive elements of an already deteriorated blood; vaso-motor tonus returns, the arterioles and capillaries contract, the superabundant vascular space disappears, and hence a larger amount of blood passes through the heart at each cardiac cycle, stimulating its action and promoting its nutrition.

Strychnine seems to fulfill all the indications in the morbid condition above described, for the action of this remedy being expended upon the spinal cord, and this part of the nervous system, in conjunction with the sympathetic, playing so important a rôle in repairing and maintaining the various processes of organic life, it is natural to infer that an intelligent stimulation of its functional activity would, under such circumstances, be a perfectly logical procedure, provided no structural lesion



existed in its substance. Clinical experience seems to have established the truth of this reasoning, and Dr. Bradfute extends this evidence with the report of several cases in which symptoms of profound collapse were overcome by the use of strychnine. Its administration must, however, be guided by the effect produced;  $\frac{1}{80}$  grain of the sulphate may be given hypodermically every two hours, or oftener if necessary, until there is the desired response. It is interesting to note that in such a condition of the system large amounts are easily borne, especially if the patient has been taking large amounts of alcohol, and the author states that he has given as much as four grains in twenty-four hours without producing toxic symptoms. The failing circulation of diphtheria is a typical one for the exhibition of strychnine, for in this affection in its severer forms we have all the conditions present to which its action is antagonistic.—*Therapeutic Gazette*.

**THE BACILLUS PYOCYANEUS.**—Within recent years the bacillus pyocyanus has attracted considerable attention in both France and in this country; first, because of the beautiful color to which it gives rise and its characteristic appearance and manner of growth under certain conditions; secondly, because of its action on certain animals; and thirdly, because when either the bacillus (Charrin) or merely its products (Woodhead and Wood) are introduced into the body it seems to interfere in a most remarkable manner with the development of the anthrax bacillus when simultaneously inoculated. M. C. Gessard has again concentrated our interest on the bacillus itself, and in a series of experiments has been able to show that the surroundings of the micro-organism, or the conditions under which it is developed, may so far modify the manifestations of its activity that it actually seems to become developed into a distinct organism, and that we have in such cases not merely a varietal difference, but even a species of race difference. He gives a definition of race, based on that given by Pasteur in his studies on beer, who takes as a basis of his classification not outward form resemblances, which can often obscure marked differences, but the physiological functions, which are far more important in distinguishing the races than are most morphological characters.

M. Gessard finds that by growing the pyocyanus bacillus on bouillon he is able to obtain both pyocyanin and green fluorescence; and that if the growth is continued on this nutrient medium, both of these functions may become so strongly developed that, even when removed

from the medium, the organism still retains these functions in a most remarkable degree. If, however, it be cultivated for a number of generations on egg albumen, the green fluorescence is lost, and it takes some little time to regain the power of giving rise to this appearance when again grown in broth. On the other hand, gelatinized peptone meat infusions allow of the production of the pyocyanin and not of the fluorescence, although another greenish pigment is always formed. On the addition of glucose to this latter medium even the pyocyanin ceases to be developed, and we have then only the greenish pigment above mentioned. On passing this organism through a rabbit it is found that the pyocyanic function is lost, and even on cultivation in broth outside the body a considerable number of cultures have to be made before it again obtains this power of forming pyocyanin, although the fluorescent function may still remain. The importance of such facts as these is very great, as we have gross optical demonstration of the modifications of the functions of the bacillus due to its cultivation on various media, to the action of heat, and to the passage of the organism through the animal body. There are a number of other organisms which, treated in the same way, become similarly modified. It is always difficult by mere chemical processes to determine how far the products and functions of such organisms have become altered, while in the case of passage through animals so many sources of fallacy may creep in that it is extremely difficult to avoid doubt that the results obtained exist in the mind of the experimenter rather than in actual fact. Where, however, the changes can be followed with the eye, and where in consequence a large number of experiments may be carried on and observed in a very short time, we are able to secure much more satisfactory and convincing proof of function modifications; and we feel emboldened to accept more freely the results obtained by the more delicate methods, especially when these can be confirmed by the coarser ones resorted to by M. Gessard. It is easier to understand how pathogenic organisms—at first comparatively benign—may on passage through several individuals attain a virulence so great that almost every patient attacked by a disease succumbs; while in the same way the passage through successive human or animal bodies may so modify the activity of another organism that the attacks of the disease become gradually less and less severe. The passage of anthrax or hydrophobia, for example, through one series of animals gives rise to an attenuation, while the passage through another series

increases the activity of the virus to such a degree that it almost invariably proves fatal. Similarly, we know that organisms growing on different media give rise to different products; for instance, the bacillus prodigiosus forms a beautiful pigment when growing at certain temperatures on proteid substances, while growing on sugar it gives rise to the formation of lactic acid. From this may be readily understood how other organisms, ordinarily not specially dangerous, when placed in favorable nutrient media outside the body, may develop powers and activities that render them most dangerous to the public health. Further, however, it must be remembered that these organisms act and react one upon the other. Of these we have an admirable example in the growth of an innocuous pseudo-diphtheria bacillus within the cavity of the mouth. We find that it may attain certain degrees of virulence, but that the virulence is developed to the highest degree only in those cases where there is present also a micrococcus or streptococcus similar to that of erysipelas, which by its presence appears to prepare the ground, and perhaps even the food, for the development of special toxic substances by the diphtheria bacillus itself. A number of facts bearing on these points will gradually be accumulated, and eventually we may arrive at some general conclusions or obtain some reliable guide as to the means by which these modifications are brought about or determined. For the present we must accept M. Gessard's most remarkable facts as an indication of the lines along which future work will have to be carried on.—*Lancet*.

**THE DANGERS OF TUBERCULIN**—These have been overstated by some with the same precipitous spirit which others have displayed in their anticipation of its power for good. In the many control observations tuberculin has not been found to injure any non-tubercular person beyond the inconvenience of the febrile reaction. In tubercular subjects, however, the reaction may be alarming in severity and lead to delirium, coma, angina pectoris (Jacobi), collapse, and even death. At least one death (Janisch, of Innsbruck) has thus been caused by acute tuberculin poisoning. This danger is more or less in proportion to the intensity of the reaction, and it is now universally conceded that by sufficient caution in beginning with minute quantities, and increasing only slowly in dose, such acute dangers can be avoided with certainty. But apart from the possibility of acute poisoning other accidents have been observed. The local reaction consists in intense congestion around the tubercular focus, infusion of serum, and more or less migration of leuco-

cytes; in short, a disturbance verging toward or even identical with severe inflammatory swelling. Under certain conditions such a reaction may prove dangerous if too intense. The fear that too much reaction in the larynx may necessitate tracheotomy in laryngeal tuberculosis has not been realized, since observers have learned to avoid the rash use of large doses. Virchow has stated that at the autopsy of a child dead of tubercular meningitis he saw the most intense congestion of the meninges in consequence of the tuberculin treatment that he had ever observed. Yet the few cases of tubercular meningitis in which the treatment was tried did not seem to suffer clinically; and although none were saved, they did not seem to run a more acute course than ordinarily. In the lungs, however, damage has evidently been done by tuberculin a number of times. Virchow, his assistant Hansemann, and various others (Nauwerk) report the frequency of catarrhal pneumonia and of caseous pneumonia, with rapid disintegration of lung tissue and even exceptionally phlegmonous infiltration of the lungs, in subjects dying while under treatment with tuberculin. In fact, clinically an increased area of dullness and of crepitation can certainly be recognized in some phthisical patients undergoing treatment. Such occurrences evidently mean danger, especially to patients weakened by their previous disease. No doubt some deaths have been hastened by the use of the remedy, and in other instances, like that of Grasset, life has even been destroyed, where without tuberculin it might have been maintained for a long period. But these unfortunate accidents are getting to be less numerous in the more recent reports, as observers gradually learn to use the substance with more discretion in the selection of the patients, and greater caution in the administration. Various specimens have also been exhibited in Berlin, especially by Virchow, which show that intestinal tubercular ulcers may perforate into the peritoneal cavity, of course with fatal result.

Perhaps the gravest question raised by Virchow, and since discussed by many reporters, is the query, Can tuberculin cause a dissemination of the pre-existing bacilli throughout the body, and thus lead to fresh tubercular disease or even miliary tuberculosis? Numerous clinical observations and autopsies have shown that miliary tuberculosis can occur in patients while undergoing the specific treatment. Of course, attention is at present called to every such case, but testimony is yet wanting to prove that miliary tuberculosis is a more frequent complication in patients submitted to treatment with tuberculin than it used to be formerly. Hence it can not be stated with certainty that a dis-



semination of the bacilli is produced by the tuberculin. But on the other hand the possibility of such an occurrence can also not be denied. It sounds like a warning to hear Hansemann declare that within a few months he had dissected three subjects with eruption of miliary tubercles on the epicardial surface, when the records of the Berlin Pathological Institute showed this localization to have been seen only six times in the last ten years.

Liebmann claims to have found free tubercle bacilli in the blood of patients during the period of reaction to tuberculin in nine cases. Some of his specimens examined in Berlin by Kossel showed that this was due to a deception. The cover glasses showed that they had been used for the examination of sputum, and had been insufficiently cleansed. Various other experts confirmed this opinion. Liebmann indeed admitted its possibility, but claimed that in other instances he had also found the bacilli in the blood when no such error could have occurred. Ewald corroborated this so far as he could tell from the slides submitted to him. On the other hand, however, Ewald himself, Ehrlich, Guttman, Kossel, Prior, and others have examined the blood of numerous patients during the reaction, with entirely negative results.

It has also been stated by Wissoki, of Kasan, that the lymph itself contains occasionally tubercle bacilli. In answer to this allegation Libbertz, the manufacturer of tuberculin, has replied that while a few bacilli may occasionally be found in the lymph, they are absolutely harmless because they are dead, since the mode of production guarantees the destruction of all living germs with infallible certainty, and the amount of glycerine in the lymph prevents the growth of any germs which might accidentally get into the flasks from the air.

Can the dangers be avoided by any precautions in the administration of tuberculin? The agent in question can not be compared in its therapeutic effect with any other known remedy, and the rules guiding its administration have to be learned by empirical experience. It is not a substance which, if inefficacious, is at least harmless. An agent exercising such remarkable specific influence on the tubercular process, even in infinitesimal quantities, yet without directly killing the bacilli, is capable of doing harm in unsuitable cases. Its indications and technique require precision like those of any responsible operation.

It has been learned that tuberculin has hitherto been at least useless, if not harmful, in very extensive infiltration of the lungs, in pulmonary cavities (except when combined with surgical measures), and particularly in acute and progressive tuberculosis of the lungs (or any other

internal organs), with continuous fever. Great reduction of strength is likewise an unfavorable condition for its action, since the tuberculin reaction, if at all marked, runs down the patient still further. Advanced cases of phthisis have not given sufficiently encouraging results to warrant its use as now employed, in view of the possible dangers.

All observers agree that intense reaction is not of sufficiently greater advantage to the patient than a milder influence of tuberculin, to warrant the large doses with which many of the earlier observations were begun. Many authors state that they have found it best to reduce the quantity of the initial dose and the ratio of increase, as their experience became wider. The most extreme advice as to the dosage has just been given by Guttman and Ehrlich, who have charge of the Berlin wards under Koch's personal supervision. In pulmonary or laryngeal disease they begin with one tenth milligram, increasing daily by one tenth milligram more until the dose of one milligram is reached. Every second day an injection is now given, two tenths milligrams larger than the preceding one. After two to three milligrams have been tolerated, the dose is augmented one half milligram each time. Later on the quantity is more rapidly increased. Some patients showed thus favorable local reaction without any rise of temperature, except perhaps a few tenths of one degree, and without any discomfort. If any dose (sometimes less than one milligram) causes a normal transient febrile reaction, the same dose is repeated every second day until it has lost its pyrogenic influence, whereupon an increased quantity is used. If a continued febrile state is produced, no injection is given until the temperature has become normal, whereupon a smaller quantity, one or even the initial one tenth milligram, may be made use of. Any continuous fever the observers regard as a contraindication to tuberculin. The therapeutic results obtained have not yet been published by Guttman and Ehrlich. Until this is done by these authors or others following the same plan, the question whether tuberculin can cure tubercular disease without febrile reaction can not be answered definitely. Various accidental observations, especially one case by Senator, have taught that some patients who did not respond to the usual doses by general reaction still were unmistakably benefited. Lichtheim has attempted to solve this problem by treating several cases of lupus with the precaution to avoid fever altogether by the use of minimal initial and very cautiously increased doses. He states that while the usual local reaction tending toward a cure of the easily observed patches of lupus was manifested, the patients did nei-

ther improve as fast nor to the same extent as those treated with fewer but larger doses, and that the tolerance to tuberculin and consequent loss of its specific influence occurred before the lupus had healed entirely. He therefore considered a moderate general reaction as an advantage. Other observers have found that after tuberculin had ceased to produce any further local improvement, on account of the tolerance established, an interval of some days or weeks permitted the organism to react again. By adopting this plan, Renders reports the cure of a case of extensive tuberculosis of the larynx.—*Journal of the American Medical Association.*

**CASE OF CHLORAL POISONING.**—On March 17th, at 8 A. M., I was called from the pauper hospital to my house to see the wife of the Chinese cook, who had been taken suddenly ill, and was now "as if dead." During the previous day it appeared the woman had been suffering from an attack of ordinary jungle fever, and had asked my "boy" to get her a dose of salts. Under the impression that it contained salts he had administered a dose of chloral hydrate from a bottle which he found in my midwifery bag. As nearly as I could judge, 360 grains had been abstracted from the bottle, which before had been nearly full. A few minutes after the drug had been given the patient complained of giddiness. She wandered a little in talk and then fell down insensible. When I first saw her, about twenty minutes after the administration of the drug, the patient was lying deeply comatose, face flushed, conjunctivæ injected, pupils contracted, and insensible; respiration about thirty to the minute, quick and shallow, box of larynx moving with every respiration; pulse 152, and very weak; reflex absent from conjunctiva and patellar tendon. I passed an ordinary syphon stomach-tube and washed out the stomach four times. The fluid at first evacuated was strongly fragrant of the drug. On the fourth washing the odor could not be detected. Before the tube was removed half a glass of pure whisky was thrown into the stomach as a cardiac stimulant pending the arrival of other means of treatment. 8:25: Pulse could hardly be counted. Epiglottis began to fall back on the larynx. This was seized in a pair of forceps and kept forward. A hypodermic injection of five minims of liquor strychniæ was thrown into the biceps, and mustard poultices were applied to the chest and the calves of the legs. 8:45: Pulse could not be counted. Respiration 25, gasping, with occasional pauses. Strong ammonia applied to nostrils without effect. 9: Pulse could not be felt at wrist, breathing shallower, cheeks blown out on ex-

piration. A pint of very strong hot coffee with half an ounce of sal volatile were injected into the rectum, and shampooing commenced over arms and legs. 9:20: Pulse still imperceptible. Respiration stopped twice, but was restored by the application of hot water to the chest. Injected five minims of liquor strychniæ as before, and continued massage to the arms and legs. 10:30: Pulse could be detected at wrist. Shampooing continued. Hot and cold water applied alternately to precordial region. 11: Pulse counted at heart about 160. Temperature taken for the first time 98.8° F. in axilla. 2 P. M.: Pulse 145, much stronger; respiration fairly full, 22 per minute. Face congested; conjunctivæ injected, but sensible to touch; pupils still contracted. Gave a large cupful of strong coffee. 6: Temperature in axilla 100.3°, pulse 98. Patient wandering and delirious. 9: Patient still under the effects of the drug. Pupils contracted, temperature 101°. When disturbed she raves slightly. At 6 A. M. on the following morning the patient was very weak and giddy, sweating profusely, slightly wandering at times; pupils normal. I gave her eight grains of sulphate of quinine and half an ounce of sulphate of magnesia. She fell asleep, and woke in about five hours, refreshed and perfectly sensible. Conjunctivæ still injected. Although every other symptom of chloral poisoning was present in a marked degree, there was never any fall of temperature. This seems to have been due to the occurrence of an attack of intermittent fever, which was itself delayed for about two hours.—*Dr. J. L. Welch, London Lancet.*

**SPLENIC LEUCOCYTHEMIA.**—Dr. H. Toulmin has described, in the Johns Hopkins Hospital Bulletin, a well-marked case of this disease, in which the microscopic blood conditions were examined with more than usual minuteness. The patient was a colored waiter twenty three years old. He gave a history of malarial infection dating back about two years, and had been suffering from swelling of the abdomen and legs from six to nine months. Among other symptoms he had had were epistaxis, a slight diarrhea, and incontinence of urine; priapism, so often observed in leucocythemia, was denied as having existed. The splenic "lump in his stomach" was first noticed by the patient about nine months before, when it would seem to have attained its present enormous size quite rapidly. It was prominent in the left hypochondrium and epigastrium, and occasioned a girth of thirty-six inches at umbilicus. The lump was a firm, solid, and movable mass, occupying the left zone, reaching to the level of the anterior superior spine, to nearly three



inches from the pubic bone and to three and a half inches to the right of the median line at the umbilicus. The edge of the swollen spleen could best be palpated in the right inguinal region. No notch could be felt. Posterior dullness on percussion extended from the lower border of the seventh rib for sixteen inches. There was no pulsation; no murmur could be heard; the superficial veins showed no enlargement; no engorgement of the lymph-glands, and no tenderness over the bones or enlargement of their extremities were found. The examination of the blood showed the proportion of white corpuscles to be as one to four, to the reds; reds were 2,008,000; hemoglobin 30 per cent. Two weeks later there were reds 2,700,000; proportion of whites to reds, 1 to 4.48; total of Fowler's solution taken, minims cc.; hemoglobin not stated. One month after last entry, there were reds 3,430,000; proportion of whites to reds, 1 to 18.8; total of Fowler's solution, minims dccxx.; hemoglobin 51 per cent. As indicated in the above, the patient was put on Fowler's solution, beginning with three minims thrice daily, and increased to six minims. Under this treatment the edema was reduced, and some of the other symptoms were mollified; but the splenic enlargement remained and was practically unchanged. The general condition of the patient is otherwise favorable, and the man reports to be feeling well. An examination of the cell-elements, made according to Ehrlich's method, show the blood to contain some in deficient quantity, such as lymphocytes 4 per cent; polynuclear neutrophiles 50 per cent; mononuclear transition forms 5 per cent; while others are in excess, such as eosinophiles 5 per cent, and myelocytes (mononuclear neutrophiles) 30 per cent. Not the least remarkable feature in the case is the excellent general condition that has been sustained; he states that he has never before weighed more than 165 pounds, while at present his weight is ten pounds above that record. *Journal of the American Medical Association.*

**THE SOURCE OF ALBUMINURIA.**—Dr. W. H. Porter, in a paper on the Source and Significance of Albumen in the Urine (the Post-Graduate, January, 1891), sums up as follows: (1) That the albumen found in the urine, excepting that which occurs in the early stages of an acute exudative or diffuse nephritis, is a derived albumen, and not serum albumen. (2) In the early stage of an acute exudative or diffuse nephritis the albumen comes directly from the blood-vessels, due to the inflammatory alteration in their walls, and is of the serum albumen type. (3) That later in acute exudative or diffuse nephritis, when the vascular walls have

partially recovered from the primary inflammatory damage, the albumen becomes more abundant in quantity, but now it is of the derived albumen type, and has been excreted by the damaged epithelial cells lining the uriniferous tubules. (4) That in all conditions, excepting the acute exudative or diffuse nephritis, where albumen is found in the urine, it is due to changes in the epithelium, by which it is unable to do the work properly and excretes or allows a derived form of albumen to pass through into the urine. (5) That the quantity of albumen contained in the urine is always in direct proportion to the amount of retrograde change in the epithelial cells. (6) That this retrograde change in the epithelial cells is secondary to an impaired nutritive condition at large, together with an overworked state of the renal cells, without a compensatory nutrition being sustained. (7) Viewed in this light, if we direct our treatment to improving the general nutrition of the system, and at the same time decrease the amount of work to be accomplished by the kidneys, we shall see many cases of complete recovery which must otherwise remain cases of albuminuria.—*London Lancet.*

**ON THE ACTION OF ATROPINE IN DISEASES OF THE HEART.**—Dr. Cardarelli has experimented with atropine in sixty-five cases of various forms of functional cardiac disease, measuring the pulse with the chromograph of Verdin, and the arterial pressure with the sphygmo-manometer of Basch. His conclusions, which appear to be based on a most careful study, are published in *La France Medicale*, January 23, 1891:

1. Atropine, in doses of  $\frac{1}{120}$  to  $\frac{1}{32}$  grain, given hypodermically in man, manifests itself first in its action on the heart.

2. The action of atropine on the heart consists in the overcoming to a greater or less degree of the inhibitory influence of the vagus nerve.

3. As a consequence of this paralyzing action on the vagus, there is constant acceleration of the cardiac rhythm, which may be in certain cases accompanied by a slight transitory slowing.

4. Arterial pressure is reduced under the influence of atropine in direct proportion to the acceleration of the rhythm.

The author concludes with the statement that, when a clinician can not use atropine in slight forms of irritation of the pneumogastric, in which there is no slowing of the pulse, it will be nevertheless a great error not to prescribe atropine in cases where a permanently slow pulse is accompanied by epileptiform vertigo, and above all, by syncope.—*Ther. Gazette.*

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## KENTUCKY STATE MEDICAL SOCIETY.

The physicians of Kentucky are well aware that the State Society meets in the historic city of Lexington on the 27th inst. In consequence of the tardiness of some who are booked for papers, we are not able to lay before our readers at this date the programme of the proposed proceedings. We have it, however, from good sources that the number of promised papers is large, while every arrangement has been perfected by the local committee to make the social features of the meeting for 1891 all and more than might be expected from the oldest city of the State.

The American Practitioner and News will publish a full stenographic report of the proceedings and most of the papers read. We are assured by the able secretary, Dr. Steele Bailey, that the programme will have many attractive features, and that the prospects for a great meeting were never better. We shall be there, and prepared to give our many friends the Kentucky shake.

SINCE our last issue the National Association for 1891 has been and passed into history. In our next we shall lay before our readers a report of the essentials of the proceedings.

## HIC JACET.

Perhaps the deadliest thing in this world, where death holds, as a rule, high carnival, is the lymph of Koch, or, in more euphuistic phrase, "tuberculin." Some months ago we published from our German correspondent a survey of the treatment, which up to his date made a heavy showing upon the negative side. Since that time the faithful, the civilized world over, have pushed the injections, with results which the optimist can no longer survey with serenity. With the exception of a few cases treated in Louisville, none appear to have been cured absolutely. A few have seemed to be benefited, but most cases have been made worse or hurried to a fatal issue under the new therapeutic departure. Elsewhere in this issue will be found a cool survey of the question by our honored contributor, Dr. T. B. Greenley. Though the author labors under a mis-conception as to the chemical nature of tuberculin, he marshals a formidable array of facts which show that it is, after all, only a straw for drowning men to catch at. Reports from the Orient are of like tincture.

The Koch treatment of tuberculosis is dead, and awaits only the process of embalming to take its place among the therapeutic mummies of the era. *Hic jacet. Requiescat in pace. Next!*

## THE SNOOK-HERR POISONING.

The Snook-Herr poisoning continues to be a somewhat attenuated theme for discussion in scientific circles. Doctors and chemists are still prolific of theories as to the nature of the offending agent, but not one can be found who is ready to go before the grand jury with a fact likely to serve any medico-legal purpose. Investigations to date have failed to bring to light any mineral poison in quantities sufficient to account for the phenomena of the tragedy. Every article of food eaten at the wedding has (if reports may be credited) been voted innocent by exclusion. Theories as to ptomaines, mushrooms, etc., are ingenious but worthless, and it begins to look as if the truth as to the cause of one of the most terrible cases of wholesale poisoning on record would never be known.



## Notes and Queries.

**THE DANGERS OF COCAINE.**—The rapid accumulation of cases in which alarming symptoms followed the local application of small quantities of cocaine, together with the fact that these untoward effects are due to individual idiosyncrasy and do not invariably occur immediately, is a positive warning to the profession that this powerful substance should not be used in any case for the first time without proper antidotes directly at hand and the patient kept under surveillance for at least a half hour. We will not attempt to refer to the cases published in which ordinary therapeutic doses administered internally or subcutaneously caused symptoms similarly embarrassing.

Nearly three years ago Satterwhite, as a result of a study of one hundred cases of poisoning by this alkaloid, called attention to the dangers attending the use of even very small doses; and at about the same time another author, after summarizing the records of fifty cases, made a similar announcement. That this warning was well founded is evident by succeeding publications. A case is reported by Broughton in which unconsciousness, an irregular, slow respiration, and a slow pulse followed the application of three minims of a twenty-per-cent solution within the cavity of a tooth. Whistler, after the application of a four-per-cent solution to the nasal cavity, noted vertigo and threatening syncope. In a case of glos-itis, Ricket states that the patient became moribund after the use of a similar solution. Myrtyle dropped three minims of a three-per-cent solution in each eye, which immediately caused a sense of numbness in the back of the tongue and throat, palpitation, threatened syncope, and nausea. Bettelheim records that in one case the hypodermic injection of one sixth of a grain induced alarming symptoms; and in another, one eighth of a grain similarly injected caused unconsciousness, congestion of the face, irregular breathing, and trismus. Cotter found unpleasant symptoms in more than one instance while using in the nasal cavities a solution as weak as ten per cent. Thus, in a young lady there was sprayed

into these fossæ six or seven minims of a ten-per-cent solution, and just as he was going to operate the breathing became very difficult, the larynx seemed paralyzed, distressing symptoms of cardiac and general depression appeared, and she was unable to walk for two hours. Hübner dropped about one and a half minims of a two-per-cent solution into the nostril of a healthy young soldier previous to the removal of a polypus. This was soon followed by unconsciousness, an exceedingly weak pulse, and cold skin. A case is reported by Ficano of a woman, forty-three years of age, who had for some time suffered from intolerable tinnitus, which accompanied a dry otitis media, with a diminution of hearing. A few drops of a five-per-cent solution were introduced into the middle ear by means of a catheter, after the use of the Politzer method of insufflation. In a short time vomiting came on with cramps and diarrhea, which lasted for several hours; there was marked muscular inco-ordination, and symptoms generally analogous to those of sea sickness.

There seems to be no doubt that cocaine is absorbed with extraordinary rapidity, and that the stronger the solution which is locally applied the greater the danger of toxic symptoms, but whether the latter are to be attributed merely to the larger dose or to some obscure action is not apparent. Falk has found that the rapidity of absorption varies in the different tissues—absorption taking place most rapidly through the conjunctiva, then in the following order: nose, larynx, mouth, and ear. It is generally conceded that a ten-per cent solution is sufficiently strong for most purposes, and robbed of many of the dangers of those of greater strength.

The nature of the toxemic symptoms varies so greatly that no rule-o'-thumb treatment can be set down. In some cases nervous and muscular excitement predominates, in others respiration in the function most seriously affected, in others the circulation, etc. Among the agents found useful are nitrite of amyl, strychnine, atropine, morphine, alcohol, ammonia, digitalis, chloral, sinapisms over the heart and stomach, hot drinks, and artificial respiration.

*Medical and Surgical Reporter.*

**PREHISTORIC TREPHINING IN PERU.**—The antiquity of trephining has formed a frequent topic for the medical historian, and many skulls have been produced from caves in France, the Canaries, Algeria, Mexico, and Peru which bear evidences of having undergone the operation during life. M. Broca has written a good deal on the subject, also Dr. Prunières, of Toulouse, who discovered some of the specimens. There does not seem to be any doubt that the European specimens really represent a rude surgical operation, for in many of the cases the edges of the bone are rounded as if the individual had lived for some considerable time after the operation. Less, however, would appear to be known about the Peruvian trephining, as the accounts existing in medical literature are apparently limited to a description of a single specimen by Broca and Nott. A very interesting paper has, however, now been published in *La Crónica Médica*, of Peru, by Dr. A. Lorena, of Lima, with drawings of four skulls, which, however, are only intended to serve as specimens of several hundred similar ones in the old tombs of Calca and Pomacanchi in Silque. Although Dr. Lorena does not seem to hold any strong views on the origin of the trephine holes, he thinks it very doubtful whether they were made by a surgical operation, though the beveling and notching may have been done by some rude instruments—perhaps with some reference to the fitting of an obturator plate of lead, silver, gourd, or other substance, such as is not uncommon at the present day in some parts of South America. It is suggested that syphilitic disease, which is known to have been very common in the time of the Incas, notwithstanding their severe moral laws, may have caused the perforations, or some of them. It would appear that the venereal origin of some kinds of disease was pretty well known, for a small statue has been preserved representing a man covered with tumors and deformities, the supposed nature of which is sufficiently indicated by the figure of the phallus engraved on the surface. Another explanation possible is that the skulls were injured by weapons. A third may also occur to those who are acquainted with the diabolical cruelty of Indians,

viz., that the holes in the skulls may have been chiselled or burnt out as a species of torture. The objections to the theory of surgical trephining is that the Incas seem to have had no knowledge of boring instruments, and that the operation, if such it were, must have been an exceedingly common one, judging from the numerous skulls that are found with holes in them. Again, it is known that the Incas were too timid and probably too superstitious to open the abdomen for the purpose of taking the viscera from the dead body for embalming, practicing instead the dragging of the intestines, etc., through the anus, so that it hardly seems probable that they would have ventured to cut open the skull in the living subject. Of course among these people, as among others where it is more certain that holes have really been chipped, scraped, or drilled into the cranium by barbarous surgeons, the idea probably was to provide an outlet for the evil spirits which were supposed to cause headaches or other diseases. In one of the skulls with two apertures there is between these a kind of pit in shape something like the cells of a wasp's nest, which gives one the impression that the operator after making a commencement there, thought better of it, and began again at a little distance. Two of the specimens figured present two apertures, and two one only. Five of the holes are approximately circular, and are in the parietal bones; the sixth, which is very irregular, probably from pathological processes, is in the occipital bone. Most of them are beveled at the expense of the outer table, and one is crenate, as if the edge had been filed with a cylindrical file or cut with a boring instrument, there being sixteen arcs in the circumference. It is possible this may have been done after death, with the intention of making an amulet.—*London Lancet*.

**CHEMICAL REACTIONS OF KOCH'S TUBERCULIN.**—In the *Farmatzeviti/chesky Jürnal*, No. 9, 1891, page 136, Mr. I. Gertel, a chemist, publishes the result of his examination of a specimen of Koch's tuberculin. The lymph forms a cinnamon-brown, odorless, viscid fluid, specific gravity of 1.17, and of a neutral reaction. Concentrated sulphuric acid dissolves it easily



and completely, the solution being at first colorless, but after a while assuming a cinnamon-brown color. Concentrated hydrochloric acid does not manifest any action on the lymph, while concentrated nitric acid produces a slight opacity, appearing at the point of contact between the two fluids. When immersed in a sulphuric-acid solution of tuberculin, crystals of bichromate of potassium soon become covered with bubbles, which are due to glycerine being present in the preparation. The following reagents give considerable precipitates on being added to a ten-per-cent aqueous solution of tuberculin: Tannic acid, picric acid, chloride of gold, nitrate of silver, sulphate of copper, nitrate of mercuric suboxide; but chloride of platinum, neutral acetate of lead, and chloride of tin produce a comparatively slight precipitation; iodide of potassium and cadmium (double salt) give a distinct turbidity, but no actual deposit. The following substances behave entirely negatively toward the solution: Iodide of potassium and mercury (double salt), bi-iodide of potassium, chloride of iron, ferrocyanide of potassium, chloride of mercury, molybdenate of ammonia, rhodanide of potassium, chromate of potassium, ammonia, and sulphate of iron. When heated with acids the aqueous solution assumes an intense yellow color. Strongly diluted aqueous solutions give voluminous precipitates with alcohol, the deposits being redissolved on a free addition of water. A ten-per-cent aqueous solution, as well as more diluted ones, when kept at the ordinary room temperature, becomes turbid even on the next day. As to the lymph itself (that is an undiluted preparation), it has not undergone any changes even after four months' keeping.—*Medical and Surgical Reporter*.

**THE PHONOGRAPH IN MEDICINE.**—The applicability of the phonograph to the record and demonstration of defects in speech has been well illustrated during the past week at the Royal Medical and Chirurgical Society and at the Hunterian Society. At the first named, Dr. Hale White and Mr. Golding-Bird were enabled by means of this instrument to allow the Fellows present to hear the curiously defective speech of two children, and to contrast this

with the improvement effected by treatment, for the subjects were present, and after the phonograph had given their past utterances, their present speech was demonstrated *viva voce*. The papers read by the above gentlemen and that by Dr. F. Taylor led to an instructive debate, which was further illustrated by some marked cases introduced by Dr. Hadden. The outcome seemed to be that these defects in articulation are probably of central origin, and not due to any mechanical interference with the organs of speech. Whether, as suggested by Dr. Langdon Down and Mr. Spencer Watson, the defect was primarily one of audition, it is a question certainly worthy of consideration. Another point raised was whether the defect should be considered one of speech or language, and some exception was taken by Dr. Taylor, Dr. Pye-Smith, and others to the use of the term "idioglossia," which, however, was ably defended by Dr. Hale White. The other phonographic demonstration at the Hunterian Society was by Dr. Hughlings Jackson, who thus reproduced the characteristic speech of a subject of cerebro-spinal sclerosis. There can be little question that the phonograph will ultimately prove very useful, especially in the preservation of certain anomalies of articulation, and its further extension to other sound phenomena in the range of clinical medicine may be justifiably hoped for.—*Lancet*.

**TUBERCULOSIS IN MEAT.**—In his report to the Boston City Board of Health, Alexander Burr, M. D. V., gives the results of his work at the Brighton Abattoir, especially in regard to tuberculosis. He hopes that the time will soon come when all cases of tuberculosis may be condemned, for recent experiments with tuberculous beef prove that the flesh contains the bacillus as well as the pulmonary and glandular tissue. Again, even if it is confined to the glandular tissue, as some suppose, and the flesh perfectly healthy, the smaller glands are so distributed throughout the body that it would be impossible to dress the animal without still leaving some tuberculous glandular tissue.

He has made it a rule to condemn all animals showing lesions on the pleura and peritoneum, irrespective of the extent of the pul-

monary lesions. This may seem mild to the profession, but when it is taken into consideration that all can not be condemned, and that the above lesions, in the form of tubercles, lie next to the flesh and are eaten by the community as so much fat, it will be seen that it is a good basis to work on at the present time.

A table of the number and percentages of tuberculous animals shows that Western cattle are very free from the disease. The Massachusetts cow has been severely maligned by some writers, and Dr. Burr proves that she is no worse than her kind in the neighboring States. But he says that, although the percentage of tuberculosis in cattle of the United States is very small, nevertheless, when cows from the Eastern States are examined, a more serious state of affairs is exposed; but when the condition of the old, unthrifty cows in the city and neighborhood is studied, and the class of people to whom their milk and other products are distributed are taken into account, the subject becomes a very serious one, and well worth the immediate attention of our health authorities. As a prevention of the above dangers, he advises the examination of all milch herds in the city and State semi-annually, and the condemning of such as show lesions of tuberculosis.—*Boston Med. and Surg. Jour.*

**THE MONKEY SOLVES THE PROBLEM.**—Monkeys have a keen sense of imitation, and are always prone to copy their master's movements whenever fancy strikes them. Seldom, however, is it that a monkey has proved itself useful by such an undesirable propensity. Yet one of these inquisitive creatures has, we understand, recently performed a feat in the matter of medicine taking, and by so doing has earned for itself a reputation which deserves recognition. This is how it was: A practitioner recently received a box of Count Mattei's medicines, and one of his children, getting hold of the box, gave it to a tame monkey in the house. The animal very soon broke open the box, and taking a vial of anti-canceroso, which is used as a cure for leprosy, swallowed seven hundred and fifty globules, besides some other fever medicines. The proper method of taking the anti-canceroso is to dissolve one of the globules

in a quart of water, and the dose is a teaspoonful at a time. The monkey, however, is not only quite well, but as lively as ever, and must now be impervious to leprosy. Clearly, if the monkey had been able to read he would have been more discreet with Count Mattei's remedies; but as no harm happened to him, the presumption is that the remedies are harmless however they are taken.—*Medical Press.*

**TUBERCULINE.**—The following charade was written by a patient recently under treatment by Koch's method at Banff, Scotland, and sent to the *Lancet* by Dr. William Fergusson (*Boston Medical and Surgical Journal*):

*My first* lies at the root of things,  
With homely earth is soiled,  
Yet at the festive board of kings  
Is always welcome—boiled.

*My second* o'er the level green  
Impels the polished ball;  
Where "cannons" rattle it is seen,  
Yet loves the peaceful "stall."

*My third* around the green earth lies,  
No angel ever saw it;  
'Twas never viewed by mortal eyes,  
Yet men must somewhere draw it.

When wasting sickness crowns the ills  
By hapless men endured,  
*My whole* fresh strength and hope instills,  
And whispers, "Be thou cured!"

**OLD AGE AS A FACTOR IN SURGERY.**—Dr. N. F. Graham, of Washington (*Medical News*, February 7, 1891), reports eight cases observed by himself, and refers to others published in this country, which show wonderful recuperative powers in very old men and women. With regard to advanced age being a contra-indication to surgical operation, it is held that if the patient be in fair general health, with an hereditary tendency to long life, mere old age is not a good reason for withholding treatment, either with the view of prolonging life or for the relief of acute suffering. As a rule, old people, Dr. Graham states, tolerate pain better than the young; but with them shock is more severe and not so quickly rallied from. In shock lies the greatest danger to the aged, and, if the patient rallies, the prognosis, so far as repair is



concerned, may be considered good. They endure operations for pathological conditions, such as new growths, remarkably well. Their recovery from accidental wounds is not so rapid.

**IMMUNITY FROM YELLOW FEVER.**—Dr. Domingo Freire, who was recently sent by the Brazilian Government to Berlin to study the Koch methods, described the bacteriological work done in connection with yellow fever before the *Verein für innere Medizin* on March 9th. Yellow fever is due to the *cryptococcus xanthogen*, a well known organism. It produces two pigments, a yellow and a black, of which the former is soluble, and gives the characteristic color to the skin; the latter is not soluble, and is the cause of the black *vomitus*. The ptomaines contain a poison which acts on the medulla. In animals the disease can be produced by the ptomaines as well as by the pure cultures. Even by the third alternation of the culture immunity can be produced. After protective inoculation, symptoms occur which resemble the initial stage of yellow fever, but disappear in forty-eight hours. The results between 1883 and 1890 have been so favorable that the Brazilian Government has recently founded an institute for the preventive inoculation of yellow fever, and authorized the expenditure of \$5,000 for bacteriological apparatus.—*Boston Med. and Surg. Jour.*

**JUVENILE SMOKING.**—Excellent common sense on the whole directed the proceedings at a conference recently held in the Town Hall, Manchester, to consider the expediency of arresting the prevalence of juvenile smoking. According to the medical officer of health for the city, this habit is practiced by 80 per cent of the Lancashire boys, and his rough calculation may not be very far from an accurate statement of facts: Any one, or rather every one, who daily meets with that presumptuous atom of manhood, the boy cigarette-smoker, must have been astonished at the general distribution of the prodigy. Equal, if not greater, is the surprise excited by his diminutive size and exceedingly tender age. Some years ago it was the boy of twelve, fourteen, or sixteen that opened our eyes. Now it is the six or

eight years old, the literal infant who prolongs his still recent privilege of suction in a fashion undoubtedly hurtful by perverting at a critical period the sensitive processes of nervous action and nutritive change. The Manchester conference discussed various possible correctives of this mischievous practice. Among these we may mention education of a homilectic character, to be carried out in board schools. Another and more practical suggestion advised ministers and teachers to set the example of abstinence in their own persons. As a last resource it was proposed that the aid of the law—restricting, as in Germany, the right to use tobacco to persons over sixteen years of age—should be called in to strengthen the gentler measures already referred to. As regards the wisdom of this latter step there would seem to be some question. We are not of those who favor the unnecessary multiplication of petty laws. There is in cases of the kind in question no power which, in our opinion, is either so natural, so safe, or so effectual as that of judicious home training, and we are not hopeless of yet seeing its influence applied far more widely than at present.—*London Lancet.*

**DANGERS OF SULPHONAL.**—Although sulphonal is probably one of the safest, as it is one of the most efficacious, among the hypnotics recently introduced, the series of cases published by Bresslauer, of Vienna, show clearly that it has certain dangers. The degree of peril is difficult to estimate, as the patients were lunatics, and were also apparently feeble; but the fact is significant that out of seventy-seven patients who were treated with the drug no less than seven showed serious symptoms, and in five of those there was a fatal termination. It ought to be mentioned that the patients had been taking the drug for a considerable time in good doses, and had borne it well till symptoms of disturbance set in, these being great constipation, dark brown urine, slow or in some cases rapid but feeble pulse, discolored patches resembling purpura on the limbs, and great prostration. In the cases which ended fatally the cause of death was heart failure, with edema of the lungs.—*Ibid.*

**TRANSMISSIBILITY OF INFLUENZA.**—In opposition to the theory that influenza is a disease not dependent upon personal contact of individuals for its progression, that it is not evolved by the intrinsic operations of a specific poison and propagated through and by means of the ordinary channels of human intercourse, may be mentioned that during the late epidemic observers have found that the course of influenza was independent of and quite opposed to the prevailing winds. It traveled slow in Siberia and Russia, but rapidly as soon as it reached the network of railways in Central and Western Europe. Its course was changed by the mountain ranges of Scandinavia, and it invaded Norway, not from Sweden, but from Holland and England. Again, it was deflected by the Carpathians, turning its course in the channels of travel down the valley of the Danube, and ultimately following, in direction and time, the ocean routes to Africa, India, Australia, and this country. In India it has shown the same peculiarities in following the railway lines as has been observed with us.

**A NEW DISEASE.**—Two English physicians, Dr. Hale White and Mr. Golding-Bird, have recently described an affection to which they give the name "Idioglossia." It appears that the patients hear well, and express themselves in articulate sounds, but such sounds are unlike those of any known language. The patients really have a language entirely of their own, in which there does not seem to be any confusion; that is, the sounds given forth have an intelligent application, and the same sound always has the same meaning. The discussion before the Royal Medical and Chirurgical Society was varied, some of the members contending that the so-called language of those affected was but a modification of the English tongue, and was to be accounted for by a lack of development in that particular direction.

**IMMIGRANTS RETURNED.**—In conformance with the provisions of the new immigration law, which became operative April 1st, fifteen Italians suffering from phthisis and other diseases considered dangerous and infectious, which were brought over by the steamship *Iniziativa*,

were on April 3d sent to that vessel to be returned to the ports from which they came. The new law makes it mandatory on the steamship companies' part to receive, maintain, and return such immigrants as are rejected. The penalty for refusal is a fine of \$300 for every offense, and to enforce it it is provided that clearance papers shall not be granted to the vessel while such fine remains unpaid. Every immigrant, on landing at the Barge Office, is subjected to a strict medical examination by the physicians connected with the Immigration Bureau.

**THE MECHANISM AND TREATMENT OF IMPACTED SHOULDER PRESENTATION.**—Dr. C. A. Herzfeld, of Vienna, upholds, in a most interesting contribution to Holder's *Sammlung Medicinischen Schriften*, Dr. C. Braun's key-hook as the gentlest, most rational, and most successful of all instruments indicated in impacted shoulder presentation. The author has carefully studied the whole reference literature, and has observed twenty-five cases in Braun's clinic. These cases offer strong evidence of the simplicity, suitability, and safety of the application, as in none of them did the decapitation of the child lead to any injury of the mother.—*London Lancet*.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.** The deaths of the following distinguished members of the medical profession abroad have been announced: Dr. Wilhelm Stricker, the well-known medical writer, at Frankfort, at the age of seventy six, suddenly. Dr. E. T. Schurrry, physician to the Saxon Court, at the age of sixty-one. Dr. N. Toloki, Professor of Midwifery in the University of Moscow.

**A PORTRAIT OF VIRCHOW.**—The famous portrait painter, Franz Lenbach, of Munich, is painting a portrait of Virchow for the Berlin Medical Society. It will be unveiled at a festal meeting of the Society, and presented to the Langenbeck House. There it will hang beside a portrait of Langenbeck in the hall destined for the meetings of the medical societies of Berlin, for congress assemblies, festal ceremonies, etc.



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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.*

## Original Articles.

### THE PROGRESS OF SURGERY.\*

BY GEORGE E. DAVIS, A.M., M.D.

A discussion of the progress of surgery to-day involves the subject of antiseptis. To it surgery owes most of its recent brilliant triumphs, and upon it I believe medical science is destined to be based. A discussion of antiseptis must deal with the micro-organisms of infectious diseases, with the micro-organisms of fermentation, decomposition, inflammation, and suppuration, and their influence on wound diseases, with nature's mode of self-defense, together with the antiseptic and aseptic methods in vogue for preventing their access to wound tissues and removing the deleterious effects of said organisms when they have already gained entrance into the tissues.

*Causes of Inflammation and Suppuration.* We are all familiar with the pathological phenomena accompanying inflammation, to wit, dilatation of the capillaries, an increased flow of the blood stream, blood stasis in the dilated capillaries, a diapedesis of leucocytes through the vessel walls, an invasion of the surrounding tissues by these leucocytes, and finally congestion of the neighboring tissues. Mechanical, thermal, and chemical agents long held first place as causes of these processes, but Pasteur has proved that the processes of fermentation, suppuration, and decomposition, with the pathogenic processes of contagious diseases, were due to a *contagium animatum*, or an organized living

cause, and to-day his methods of investigation stand above criticism.

But it was reserved for another to put into surgical practice Pasteur's *contagium vivum* theory. Joseph Lister, perceiving the favorable progress of subcutaneous wounds as compared with the unfavorable progress of open wounds, conceived the idea that the difference in results was due to the presence of micro-organisms in the air, which entered the open wounds, and, finding a nidus in the secretions, grew and multiplied, causing inflammation and suppuration. He next conceived the idea of killing or rendering inert these micro-organisms, and selected as his first agent carbolic acid.

This was in the spring of 1867. In an article published in the London Lancet of that time he first used the word *antiseptic* in its present sense, which dates the beginning of the antiseptic era. He continued in his efforts at wound treatment, and in 1870 produced his antiseptic dressing, founded upon the *contagium vivum* theory.

By the use of antiseptic methods Lister proved that fermentation and decomposition were due to bacteria, and that by preventing fermentation and decomposition he avoided disease processes in wounds, thus analogically proving that the pathogenesis of the latter was a *contagium animatum*.

A quarter of a century previous to this, however, Heuter declared that inflammation and suppuration were the result of living organisms, *monads*, and that where these were not present it was impossible to have inflammation or suppuration; but lacking sufficient evidence to substantiate his views and reveal to the public and professional sense that which his prophetic mind foresaw, his theory fell to the ground.

Another worker, however, was needed to perfect the antiseptic dressing. It was Robert

\* Read before the Mercer County Medical Society, March 11, 1891.

Koch, who, by his "pure-culture" methods, established the causative relation of micro-organisms not only to general infectious diseases, but also to wound diseases, diphtheria of wounds, septicemia, pyemia, etc. He also determined the power of certain antiseptic agents to destroy said organisms. Thus by the ingenious methods of the pure-culture process we are able to isolate the pyogenic microbes, and by their introduction into the tissues may produce suppuration in them at pleasure.

When this had been proved, and when it was further proved that where strict antiseptic measures were secured, neither mechanical, thermal, nor chemical irritations caused inflammation or suppuration, surgeons began to perceive the wisdom of Heuter's observations.

*Nature's Methods of Protection against Micro-organisms.* In quite recent years the processes by which the individual protects itself from the noxious influence of micro-organisms has been studied with great results. The microscope has revealed to us undreamed-of truths in the domain of cell life. At the same time it has thrown much light on the relations micro-organisms bear to the body in health and disease. Here are some of the theories held as to the processes by which the animal organism is said to rid itself of bacteria, those infecting wounds included.

1. *Phagocytosis*, or the power possessed by leucocytes of feeding upon and destroying bacteria, probably offers the most plausible theory as to how the organism divests itself of these invaders.

Metchnikoff, observing the ameboid movement of leucocytes, by a series of unique experiments investigated their further analogy to the amebæ as regards their power of intracellular digestion, and noted the fact that they had a special affinity for bacteria as a food. One of his experiments, as related by Lister in his recent address before the Tenth International Congress, was on the green frog, and as follows:

(a) "The green frog below the temperature of 68°F. is incapable of taking anthrax; the bacilli of that disease won't grow when introduced under the skin of that animal. To what was the immunity of the frog to anthrax due? Were its juices an unfit pabulum for the mi-

crobe, or was the phagocytic action of its leucocytes the explanation? In the hope of solving this question, Metchnikoff formed a tiny bag out of the pith of the reed, and having placed in it some spores of anthrax closed the bag and inserted it beneath a frog's skin. The pith wall of the bag allowed the animal's lymph to penetrate by diffusion, but excluded the leucocytes, and the result was that spores sprouted and grew into luxuriant threads of anthrax in the lymph, which was thus proved to be a suitable medium for the growth of the bacillus. Meanwhile, under another part of the skin of the same frog, there had been placed a piece of the spleen of an animal that had just died of anthrax, which contained the microbe in its most virulent form; but there, the leucocytes having free access, no growth occurred."

(b) Another and more interesting experiment consisted in introducing some anthrax spores into the anterior chamber of the frog's eye, also a sheep's and a rabbit's eye were experimented on, the latter being rendered immune by inoculations with Pasteur's "attenuated virus" For a while the spores thrived, there being few or no leucocytes in the aqueous humor to retard their progress; but the irritation occasioned by their growth resulted in the emigration of increasing numbers of leucocytes until a sufficient number had gathered to the scene of combat to devour their enemies. A drop of this aqueous humor, thus experimented upon, being withdrawn and placed under a microscope, revealed the fact that the anthrax bacilli had been ingested by the leucocytes, and were in varying states of deorganization according to the time of observation. Notwithstanding this a susceptible animal may be easily inoculated by way of the anterior chamber.

(c) J. Bland Sutton, in his "Evolution of Disease," 1890, observes that this aggressive behavior of leucocytes to foreign bodies is extended to such unwelcome guests as pathogenic bacteria. When micro-organisms effect an entrance into animals the leucocytes attack and attempt to destroy them, and the details of such amebic warfare may be described from attacks actually witnessed by Metchnikoff in the water flea (or daphnia):



"This observer kept many of these interesting transparent creatures in a tank, and noticed that they became affected with spores which gained an entrance into the body of the crustacean and germinated. . . . In the mean time the leucocytes do not remain idle against the invasion, but attack and devour the conidia, take them into their interior and digest them. If a conidium be too much for one cell, others join it, form a giant cell, and thus struggle with the invader. Should the leucocytes overpower the spores, the daphnia lives; if not, the conidia overrun the crustacean, and death is the result."

An analogous process is represented in man, where the giant cells of the tuberculous tissues struggle against the invasion of the tubercle bacillus.

The phagocytic theory explains also the powerful antiseptic agency of the blood clot, since leucocytes help to compose the clot. That blood clot has this agency we witness in the healing of the posterior edges of hare-lip wounds in the presence of myriads of bacteria in the mouth. Lister also demonstrates this fact by an interesting experiment upon a donkey, but which we have not time to relate here. So much, then, for phagocytosis.

2. Another theory of self-preservation of the organism is based upon the anti-bacteric properties of the blood serum. Chief among the supporters of this theory are Prudden, Nutall, Büchner, Nissen, Labarsch, Sittman, Orthenberger, and Fodor. I shall not discuss their investigations further than to state that when fresh blood serum was rendered free from leucocytes it was found still to possess decided bactericidal power, though, as Prudden states, "in different degrees in different animals, and in varying potency with the different bacterial species." Thus, as demonstrated by Prudden, the typhoid bacillus is much more vulnerable to the destructive agency of blood serum than is the staphylococcus pyogenes aureus.

3. The third theory by which nature is claimed to dispose of pathogenic bacteria was originated, so far as I know, by J. W. McLaughlin, of Austin, Texas, in "The Molecular Cell Theory." His article in the Medical Record of January 25, 1890, is worthy of perusal. We now come to

*The Action of Bacteria.* Since it is a fact that bacteria can and do cause wound disease, although combated by nature, the question is, how do they do it? Do they act in a mechanical way, by unlimited proliferation, in a chemical manner, or by their products, as ptomaines and leucomaines?

Physiologists say that all processes in the animal organism, whether in health or disease, are presided over by the nerves. Therefore, whatever may be the source of irritation, whether it be micro-organisms, ptomaines, or leucomaines, or some chemical substance, the irritation can only be made manifest through nervous influence, and as inflammation and suppuration result from a disturbance of the nutritive process, which is presided over by the vaso-constrictor and vaso-dilator nerves, it follows that irritation of said nerves, whether it be microbic, mechanical, thermal, or chemical, proves a cause of inflammation and suppuration. It further follows that whatever agent protects the sympathetic nerves against abnormal irritation or renders these nerves unimpressionable to it is an antiseptic, whether it possesses germicidal properties or not. Else how could we account for the beneficial action of iodoform in preventing pus formation and assisting granulation; for all observers are at unity as to the inadequacy of iodoform to directly kill bacteria or to control their pathogenic power.

Bouchard claims that microbes act through their secretions; that these secretions paralyze the vaso motor center in such a way that exudation and diapedesis are impossible, and that after artificial injection of this material the local phenomena of inflammation—namely, vascular engorgement, diapedesis, redness, swelling, and heat—can not be excited even by the application of croton oil. Now these products, which hinder production of local phenomena, and thereby prevent the immigration of leucocytes to attack the microbes, render general infection more rapid and more serious.

*The Problem of Antisepsis* can not be reduced to germicides alone, but is based upon the best means of rendering the tissues invulnerable, as by protecting the sympathetic nerves from undue irritation.

Sutton says ("Evolution of Disease," 1890): "The possibility of reversion under discouraging environment is more hopeful than relief by vaunted germicides." Upon this basis the aseptic methods of Tait, Bantock, and others are founded and have their success. "The more," continues Sutton, "these questions are studied the more we perceive that the outbreak of infectious diseases depends not so much upon the presence of micro-organisms—for, like the torula, they seem to exist everywhere—as upon the existence of suitable conditions; and as yeast can not grow and multiply without sugar, neither can the poison of erysipelas, typhus, relapsing fever, and the like propagate without the presence of some substance produced in living bodies, of the nature of which we are ignorant." Rodet and Rouge claim that the *bacterium coli-commune* which is constantly present in the healthy intestine, under suitable environment is converted into Eberth's bacillus of enteric fever. Thus it appears that where the environment is suitable pathogenic bacteria not only survive and flourish, but that they may be evolved from non-pathogenic forms. Drs. Corvil and Babés have discovered that while the infection of wounds, as also infectious diseases, may be occasioned by a single species of bacteria, it often requires the conjoined action of several varieties, and that in certain instances the association of two or more species of micro-organisms is necessary to the evolution of the malady. They found that a certain affinity exists between particular species, and that the development of certain varieties may be facilitated, or the reverse, by the presence or pre-existence of certain other varieties, thus proving a necessity of special environment. This affinity may occur "between microbes belonging to more or less nearly related species, as in the case with the organisms of pneumonia and typhoid fever; or there may be streptococci and bacilli together, as in diphtheria; or several varieties of streptococci, as in the infection of wounds."

The artificial methods employed to assist nature in her self-defense may now be considered, and I shall bring this paper to a close with an account of

*The Chief Antiseptics*, together with the advantages and disadvantages of each:

1. Carbolic acid, phenol or phenyl alcohol. Its disadvantages are volatility, highly irritating properties, and feeble, slow germicidal power. It has cheapness in its favor.

2. Bichloride of mercury. This is stable, and acts rapidly as a germicide, but it is very irritating, and besides it is precipitated by the serum albumen of the blood. To avoid this Dr. E. Laplace, of New Orleans, uses an acidulated sublimate solution, prepared according to the following formula: Hydrarg. chlor. corros. gr. xv; acid tartaric 3j; aquæ dest. Oij. Bergmann uses this in his clinics.

3. The double cyanide of zinc and mercury more nearly accords with the requisites of an ideal antiseptic according to Lister. It is non-volatile, non-irritant, insoluble to the extent that wound secretion does not wash it out of the dressing, and has only one disadvantage, a more or less feeble germicidal power, but this is counterbalanced by its inhibitory power over bacteria.

4. The biniodide of mercury is but slightly inferior to the bichloride as a germicide; it is less toxic and more stable, and more agreeable to the operator.

5. Hydronaphthol, in a solution 1 to 400, exercises a powerful germicidal and inhibitory influence.

6. Iodoform, as above stated, has the power of indirectly inhibiting the action of bacteria, though not a germicide. Its chief disadvantage is its odor; and further, according to Neudorfer, "it possesses toxic properties for some individuals; they lose their appetites, become morose, absent-minded, and if the drug be continued there result physical changes and death."

7. Iodol is claimed to possess the favorable properties of iodoform. It is odorless and non-toxic. It is prepared by a mixture of pyrrol with an alcoholic solution of iodine.

8. Aristol, a compound of iodine and thymol, has also been recommended as a substitute for iodoform. The advantage claimed is that it has no offensive odor and is effective in smaller quantities.

9. Campho-phénique is another substitute offered for iodoform. "As a final dressing over



all sutured wounds," says Prof. A. C. Bernays, "it is one which can be left longer than any other known to me, possessing more powerful germicidal qualities, which are not readily lost by evaporation. It is non-irritant, in fact causes decided anesthesia of the skin, . . . will not dry rapidly and adhere to the skin." It has the disadvantage of being non-miscible with water. The best way to employ it is to saturate some layers of gauze with the pure campho-phénique and accurately cover the incision with it.

10. Kreolin, a preparation obtained by dry distillation of English coal, is highly extolled by Neudorfer as the antiseptic that may displace all others. He claims the following advantages: "Absolutely non-toxic to man; is ten times more germicidal than carbolic acid; is soluble in water, alcohol, and glycerine; it controls hemorrhage and pain; it limits suppuration; it injures neither metal nor hands; it is very cheap." But he omits its disadvantages. Its odor is unpleasant, and H. Martin claims it has toxic properties, causing nausea and vomiting, also albumen in the urine. It is more or less unstable, and forms non-transparent emulsions with water.

*Ligatures, Sprays and Irrigation, Drainage, Dressings and change of Dressings.* As material for ligatures silk is fast losing ground, while catgut and silkworm-gut are in growing favor.

*Sprays and Irrigations.* Lister says, "As regards the spray, I feel ashamed that I should have ever recommended it for the purpose of destroying the microbes of the air. . . . The floating particles in the air may be disregarded in our work, and if so, we may dispense with antiseptic washing and irrigations, provided that we can trust ourselves and our assistants to avoid the introduction into the wound of septic defilement from other than atmospheric sources." If we could dispense with irrigation and washing, we would avoid the effusion of serum and blood resulting from the irritation which they produce, and thus we would dispense with the necessity of drains. Lister says "it would be a grand thing if we could dispense with drainage altogether." This Dr. E. Réczey has done since 1885, and with excellent results. He considers drainage unnecessary, and claims that

it may be dispensed with altogether "if care is taken to provide perfect asepsis and arrest of all hemorrhage." But beyond the above requisites other precautions are necessary to obtain good results without drainage. All pockets must be opened up by free incisions, and an antiseptic compress applied and left in place for a long time to take up the secretions.

However, there is a class of wounds, as bruised or contused wounds, gunshot wounds, etc., that will always demand drainage, for here the violence of the injury unavoidably causes sufficient irritation to produce copious effusion, even did not the wound become contaminated with septic matter, which most usually is the case.

*Drains.* Of all drains, the rubber drains introduced by Chassaignac are the best for general utility, though many forms have been introduced since.

Drainage-tubes are only requisite in the pre-suppurating period, that is, in from one to six days after the operation. "They are unnecessary," says Neudorfer, (a) "in open wound treatment; (b) in flat wounds where the dressings can soak up the secretion and carry it off; (c) in cavity wounds which can be thoroughly tamponed; (d) in cases where the intention is to bring the edges of the wound together only after the lapse of one to three days."

*Dressings.* Lister firmly adheres to antiseptic dressings as opposed to the aseptic or sterilized dressings of Bergmann, though he believes that "with assistants duly impressed with the importance of their duties that aseptic operating would prove a task by no means difficult," and that we might give up the spray and all washing and irrigation of the wound. He claims that where aseptic dressings become saturated to the outer surface they become septic in mass, and that a chemical antiseptic dressing is the only form of dressing that will prevent in itself the development of organisms.

Concerning dressings I shall not comment further than to say that in the Lister the protective next the edges of the wound and in the Mackintosh the protective on the outer surface of the dressing, to guard same and keep it moist, are not the least important features of the dressing. We can all remember the disadvantages

of dry dressings, such as sticking to the unprotected surfaces of the wound, etc. One properly applied first dressing saves many subsequent secondary dressings.

*Change of Dressings.* Causes: (1) Pain; (2) elevation of temperature beyond the limits the wound injury would warrant; (3) suppuration; (4) undue secondary hemorrhage. They are changed sometimes to remove rubber drains, and sometimes because of rampant curiosity.

That the four first are sufficient argument against change of dressing will be granted. The last cause, "rampant curiosity" (Morrow), is perhaps the worst, since it has spoiled the success of many a promising operation. It is responsible for half the failures of operative technique. McArthur, of Chicago, ventures the statement that one half the primary wounds that become infected do so at the redressing, and not at the time of operation.

*Recent Advances in Operative Technique.* Our great leaders have taught us a technique that can hardly be improved upon. Intra-abdominal operations became a mania for a time, but it is easy to see in it signs of abatement during the last year or two. The tendency now is rather to conservatism as surgeons become better able to discriminate and select their cases. As regards operations for inflammation of the vermiform appendix, the chief progress has been in the way of improved diagnosis, and of early interference when the diagnosis has been established.

Concerning penetrating and gunshot wounds of the stomach and intestines, with Prof. Senn's methods at our command, the day has passed when the surgeon may pursue the expectant plan with the certainty of death to the patient.

Wyeth's bloodless method of amputation at the hip-joint is the fitting crown of this great surgeon's other brilliant achievements.

The surgery of the joints is becoming more conservative, but operations upon the nerves and nerve centers have been pushed to extraordinary achievement.

It is yet too early to judge the influences of Koch's recent discovery on the several forms of surgical tuberculosis, but it looks as if the lymph injections would probably supersede all other methods of treating lupus.

With a retrospect so full of brilliant performance, and with daily increasing facilities set to his hand, the surgeon can contemplate his future with expectations of results undreamed of a decade ago. "Chameleon like, he snuffs the air promise crammed."

SALVISA, KY.

## Societies.

### AMERICAN MEDICAL ASSOCIATION.\*

The Forty-second Annual Meeting, held at Washington, D. C., May 5-8, 1891.

#### GENERAL SESSION—FIRST DAY.

The president, Dr. W. T. Briggs, of Tennessee, in the chair.

The proceedings of the forty-second annual meeting of the American Medical Association was commenced in general session at Albaugh's Opera House, Washington, by an address of welcome to the members and delegates by the Hon. J. W. Ross, one of the commissioners of the District of Columbia.

He characterized the Association as representing a constituency more numerous and powerful than any other on the face of the globe, and one whose influence could not be overestimated. No similar organization ever occupied the vantage ground held by the Association for the discussion of topics calculated to enlarge its usefulness and power. One of the primary objects at which it was aiming was the promulgation of such legislation as would tend to strengthen the profession in the performance of its duties. As a member of the bar he had often marveled at the fact that the common law, which respected the confidence which should exist between counsel and client, did not extend the same privilege and protection in the case of the physician and his patients. If any communication should be absolutely sacred and beyond the inquisition of the witness-stand, it should be the statements made by an individual to his medical adviser. He thought that the time had come when any suitably expressed statements of the rights and

\*Condensed from Boston Medical and Surgical Journal and other sources.



requirements of the medical profession in this matter to the great body of law-makers in Congress would be treated with the most profound respect.

#### THE PRESIDENT'S ADDRESS.

In the course of his address the president reminded his hearers that they were met solely for the promotion of science and for the good of the human race, to maintain the honor and dignity of the profession, and to hold aloft the flag of honorable medicine. They were there to lay their contributions, the results of study and observation, upon a common altar for the common good; to worship at the sacred shrine of medicine, and to renew their fealty to the noble profession to which they had devoted their lives and linked their fortunes. As physicians they had an almost superhuman mission to fulfill. The chief object of their professional work was to preserve life and insure health. The goal of their ambition and desire was almost at the end of human capacity. It was their province as well as desire to know all the secrets of organization. They would have the formative crystal and the germinal spot made transparent. They would enter the microscopical world and witness the wonders therein revealed, and would, if possible, search into and unravel the very mysteries of the vital principle. To this perfect knowledge did they aspire. It was doubtful if man's intellect, great as it was, could ever compass all that he so earnestly desired, yet by constant and faithful work he might approach nearer and nearer to its consummation. In every part of the habitable world blessed with light of civilization, active, busy members of the profession, endowed with high culture and incited by the noblest resolves, were enthusiastically engaged in unravelling the mysteries of disease, and seeking means and methods of treatment for the mitigation and relief of suffering and the prolongation of life. That the full benefit of the labors of American physicians might be attained and utilized, it was essential that the members of the profession, scattered over an area of country of almost inconceivable magnitude, should be brought into associated action and organized into a body whose influence might be exerted

over the length and breadth of the land until a correct and noble sentiment was engendered in the mind of every member of the profession.

One of the great benefits conferred by the association was the establishment of an *esprit de corps* in the profession by the preparation and adoption of a code of ethics, which comprised the great principles of truth, honor, and justice in regulating the relations of physicians to each other, to their patients, and to the public. This should be and was the written law, clearly defined and of acknowledged force and effect, that prevailed from one end of the country to the other. It formed an impassable barrier between the sheep and the goats, the clean and the unclean, the physician and the charlatan. The strict observance of this code had done more than any thing else to maintain harmony in the profession, and to elevate it in the public estimation. It embodied the true spirit of the golden rule, "Do unto others as you would be done by." Every one who entered the profession should be provided with a copy of the code, and should make it the guide of his medical life. It would serve as a talisman to the young physician, and would be the best safeguard against snares and pitfalls. It would seem that every honorable and high-minded member of the profession would be willing to indorse and be controlled by this code. It was to be regretted that there were some who undoubtedly possessed a high order of talents, and were justly distinguished, who had still an utter repugnance to the observance of certain parts of the code, and who held themselves aloof from the Association in consequence. These gentlemen were probably as proud of the noble profession to which they belong as any, and were equally as anxious for the advancement of its interests, but could they consciously affirm that the motives by which they were influenced were pure and unselfish? Should these members put their opinion against the unbiased and unselfish judgment of the wisest and most experienced in the profession, nine tenths of whom were guided in their actions by the spirit and letter of the code?

The fundamental and chief object of those who had originated the Association was the

improvement of the American system of medical education and the elevation of the standard of requirements for the professional degree. Never was there a greater expenditure of effort, illumined with genius and learning, to accomplish these two great objects, and though many of the ideas were, in a country diversified in character and extent, probably somewhat Utopian, there had been a gradual elevation of the standard of education fully equal to the progress of the country in every other department of human learning. The speaker was ready to maintain that the advantages and facilities for medical instruction in this country, even at the present time, were quite equal to those of any other, and that the medical colleges had produced as able, learned, and successful practitioners as ever graduated from other institutions. While he was willing to admit that their transatlantic brethren had excelled in experimental work, this country had taken the lead in all the practical departments of medical science.

Now that the College Association had adopted all the requirements for improved medical education which the Association had been so long urging, and for which in fact it was established, it was eminently proper and important to pass a resolution that, after the changes contemplated had gone into effect, no medical man who had received a degree from a college which had not adopted the improved method of teaching, and no professor or *attaché* of such college should be eligible as delegates or members of the Association. This great moral support was due to those colleges which had so heartily taken up the burden which the Association had for nearly half a century carried on its own shoulders.

It might be well to call attention to the fact that original research and experimental investigation had not received the attention from American physicians which their importance demanded. The government, while the most liberal and best in the world, had never seemed to comprehend that the cause of science would be greatly advanced and its own honor increased by the establishment of schools for original investigation and experimental research. It had not kept pace with other enlightened governments in scientific enterprises.

Such work must, in the very nature of things, be left, for the present at least, to the progressive spirit which animated the universities, and to private laboratories which were being established in different sections of the country. It would probably be advisable to establish a Section of Experimental Research, which would tend to advance science and be greatly to the interest of the work of the Association.

It had been a happy conception of one of their most distinguished presidents to make the establishment of an Association journal the burden of his inaugural address, and so powerfully did he impress this upon the minds of the members that a journal had sprung into existence which had in a short time given evidence of its power in the advancement of its purposes. It might require years to bring it to the desired standard. To effect so desirable an object it was necessary to make provision for an ample annual income. Nothing less than seventy-five to one hundred thousand dollars should be considered ample. Next in importance to its financial needs was the selection of an editor, able, learned, and highly endowed with editorial tact and business qualifications, who would devote all of his time and talents to his editorial duties. He should be empowered to spend money liberally in obtaining scientific material, original communications, translations, and reviews from every part of the world. He should have absolute control in the selection of matter for the journal. To such an editor such a salary should be given as would render him independent. The sum should be not less than ten or fifteen thousand dollars a year. The necessary funds could by proper exertion be easily raised, and would not only sustain the journal in the best style, but would afford a sum in addition which could be used in many ways to the advantage of the Association. The future location of the journal was a matter of such importance as to require their careful consideration. Its weal or woe might depend upon the action taken at the present meeting. It had been suggested that the journal of the Association be removed to Washington, and it had been determined to submit the question to the members of this session. He would beg the delegates and



members of the Association to consider well every side of this question before committing themselves to a vote. The journal has now its home in Chicago, and has been there for eight years. It had already become the peer of any of the great weeklies of the country, and if properly sustained by the profession, and wisely and energetically conducted by its managers, it would become the recipient of the best thought of this country, and the worthy exponent of the American profession. It had been proven that it could be more economically published in Chicago than in Washington, which latter city was by no means an important scientific or professional center. But it was the great center of American politics to which every thing was made subordinate, and it would be impossible if the journal of the Association was published in the city to prevent it becoming contaminated by the political air.

#### THE RELATIONS OF CONTRACT SURGEONS TO THE GENERAL PROFESSION.

A special committee appointed last year by the Medical Society of West Virginia to consider this subject memorialized the Association, and appealed for its active co-operation to effect the redressing of alleged abuses. The memorialists asked consideration of the question, as to how far the rules adopted by railroad corporations for the government of the surgeons in their service infringed upon the rights of the profession at large, as set forth in the Code of Ethics of the American Medical Association. It was well known that large bodies of men were in the employ of these corporations, and that these men lived in widely scattered communities. The corporations had established systems of contract surgeons to attend employes and passengers injured by accidents. It was also well known that these corporations had adopted rules for the government of the surgeons and those injured, which demanded that these surgeons should assume entire charge of such employes or passengers, when injured, regardless of the rights of any outside medical men who might have been summoned, and be in attendance upon the injured prior to arrival of the company surgeon, even though the doctor first in attend-

ance might be the family physician of the injured person. Notices had been in most cases served by the railroad companies, waiving all responsibility in respect of injuries treated by non-contract men.

It was assumed by the memorialists that this condition of affairs placed the contracting surgeons in direct conflict with the spirit of the Code of Ethics, and was an infringement upon the rights of the physician first called. The practice of accepting passes as compensation, or in lieu of the regular fees customary to the profession, was detrimental to its interests by lowering the standard of the value of the surgical services, and was further demoralizing as it gave to these wealthy corporations services at far less rates than the profession charged to individuals. It seemed that if members of the profession were at liberty to make contracts to furnish an unlimited service of the kind referred to for passes, and in some cases for small fixed money payments, without affecting their ethical standing, all stigma of unethical or unprofessional conduct should be removed from those of the profession who contracted with private individuals to furnish medical or surgical services, including medicines, by the month or year, at fixed sums. A special committee was voted to sift the facts in respect to points alleged in the memorial.

#### THE RUSH MONUMENT FUND.

This subject was again brought before the Association by Dr. A. L. Gihon, who for the seventh time reported slow progress toward the accumulation of the required appropriation. He made an earnest appeal for more enthusiasm in the matter, and propounded certain schemes to be adopted for the purpose of raising the necessary money, which were approved.

#### THE ADDRESS ON GENERAL MEDICINE.

Dr. E. L. Shirly, of Detroit, delivered this address. He said he should present for consideration some points bearing on the relation of micro-organisms and toxins to the so-called zymotic or infectious diseases. Though laboratory work had done more than any other branch of science toward clearing up many vexed questions about physiological and patho-

logical activities, yet to be of lasting value and guidance it must agree with general and clinical observation; and there were instances where laboratory and clinical observations had crossed swords. He was aware that it was generally accepted that bacteria, or their spores, were the essential cause of most, if not of all, of the infective diseases, and the results of bacteriological investigation during the last few years would seem to support such a doctrine for the following reasons: (1) they could be isolated by color reactions, and thus directly connected with the diseased body when found; (2) they required a certain time for development, corresponding to the period of incubation of such diseases. Many of them being ectogenic and saprogenic, anerobic or erobic, they could thus live until the opportunity for invasion offered. Being endowed with life, and multiplying enormously, they could resist destruction. Being protoplasmic and microscopic, they could more readily affiliate with animal fluids, cells, and tissues; existing in a passive or quiescent state as well as an active one, they could behave like vegetable seeds or spores and preserve a long period of latency.

For these and other reasons which might be adduced, we were led to believe that bacteria must be the cause in some way or other of the zymotic infectious diseases. But the question arose, How did they effect this result? Was it by mere local growth for a parasitic life by the secretion of a material from themselves? That is to say, were they secreting cells, or did they induce at once chemical changes or fermentation of a destructive character, with the formation of new poisonous substances? It would be seen that many observers who were strong in their faith in the microbic origin of disease had not in every instance looked fairly at the question. The statement that no case of genuine cholera had as yet been reported in which the comma bacillus was absent had been disproved. In what bacteriological life was exemplified certain effects had been observed connected with development. The career of bacteria *ad interim* from one animal to another was not well known. In the case of many of them spores had never been demonstrated or their behavior formulated. Most of the species

were destroyed by the healthy fluids or tissues, and hence their destiny depended upon a favorable nidus or pabulum, which meant disease. It was obvious that their artificial culture in media outside the body, or in the lower animals, could only approximately reflect their real natural growth and development; for in no instance was it possible to transfer the artificially cultivated micro-organisms to an animal with the absolute certainty that nothing else accompanied the bacteria. That certain species only appeared to be pathogenic implied a state of specialization analogous to living nucleated cells. That their action was local primarily in all cases might be assumed, because their behavior in no way showed that they themselves invaded or maintained their existence in the blood or lymph fluids. Therefore it was probable that pathogenic bacteria developed only where previous disease or an abnormal state of the body suitable to them existed; that having found such they took root, as it were, and by their catalytic action primarily, and secondarily by giving rise to a particular toxine, which in turn acted selectively as a tissue poison. If the bacilli of tuberculosis immediately produced the several diseases known as tubercular, why would any previously prepared nidus be necessary. If they, or their still undemonstrated spores, were constantly invading us, which was undoubtedly true, they must at once be destroyed, or by gaining access to the fluids of the body must set up mechanically or otherwise inflammation and peculiar effects as any other foreign body would. But as such micro-organisms must find just the proper conditions for development, or not develop, we might assume that such a result implied previous disease, such as caseation, whether tuberculous or not. Complex and delicate processes attended the changes of proteids, and by radical or atomic substitution one might be changed readily into the other. We could see how probable it was that these micro-organisms might operate by a peculiar property which enabled them to decompose or exercise a catalytic action on certain states and kinds of proteids.

It was manifest that diseases arising from the presence or entrance of micro-organisms



must be therapeutically treated by attacking the cause or neutralizing its operation. The bacteria produced for themselves or from the organic substances which they attacked a poison which could be cultivated outside the body in some instances. Pathological chemistry had not demonstrated with exactness the nature of all these poisons or classified them, but it was fair to believe that this would be done in the near future. Although it was generally supposed that inorganic chemicals were not tissue poisons, but acted only upon the functions through the nervous system, still this view did not obtain when we observed the changes produced by iodine, bromine, phosphorus, arsenic, and the silver, gold, platinum, and cupric salts, beside some of the vegetable alkaloids.

In consideration of the changes which many of the remedies underwent in the stomach and intestines by oxidation or other changes before absorption, it seemed to the speaker that the rational mode for the administration of drugs was to do so hypodermically, and in this way it was possible to command effects which could not otherwise be attained. Dr. Lauderer had obtained beneficial effects in phthisis from hypodermic injections of balsam of Peru. Behring had recently found that a number of chemical substances used hypodermically, such as aurochloride of sodium, naphthaline and trichloride of iodine were capable of neutralizing the poison of diphtheria in guinea-pigs, the latter substance being the most active of all. The same observer had also practiced in diphtheria, and with good effect, the vaccination of animals with bacillus cultures. Better effects had been obtained from the administration of bromide of gold by injection, and from the bromide given in the ordinary way. The prompt results in the treatment of erysipelas by carbolic injections were well known. The superior effects of the treatment of syphilis by the hypodermic injection of cyanide and bichloride of mercury and chloride of gold and sodium were striking. Hypodermic injection of chlorodyne in profuse diarrhea was superior to its administration by the mouth. Ergot administered even in considerable quantities by the mouth would often fail, whereas one or at most two hypodermic injections of one

tenth or one fifth of a grain of ergotin would generally stop a severe attack. Digitalis also acted upon the cells and vascular system more certainly when so administered. He might also mention the beneficial effects of strychnia used in the same manner in typhoid conditions.

That animal poisons can be neutralized in the body he believed would soon be generally demonstrated. The recent experiments of Tyn-dall, of New York, for the cure of tuberculosis by vaccination promised well. Hemmeter had stopped the diphtheritic process by the vaccination of the patient with an erysipelas toxine, and it was stated that people suffering from tinea tonsurans were immune from diphtheria. This would seem to show that there must be a sort of antagonism between animal and chemical poisons. Why could not more universal application be made of this principle with a view to obtaining more specific therapeutic agents. His object in choosing this subject had been to awaken a more general interest in physiological and pathological chemistry, and thus to hasten the period of release from empiricism.

#### THE ADDRESS ON SURGERY.

"Stricture of the Rectum: its Etiology, Pathology, Symptomology, Diagnosis, and Treatment," was the subject of the address, by Dr. J. M. Mathews, of Louisville, Kentucky. He said he realized in discussing this subject that he should take positions contrary to the accepted teachings of the day, but assumed that the one great object of the meetings of the Association was to elucidate and discuss subjects that were in doubt—those mooted, not admitted.

He considered the classification of the varieties of stricture of the rectum as given by Dr. Kelsey, viz:

Congenital. Complete, Partial.  
Acquired.

1. Spasm.
2. Pressure from without.
3. Non-Venereal. (a) Dysenteric; (b) Tubercular; (c) Inflammatory; (d) Traumatic.
4. Venereal. (a) Ulceration (either chancroidal, secondary or tertiary); (b) Due to unnatural vice; (c) Neoplastic (gummata, ano-rectal syphiloma).
5. Cancer.

The first great division, it would be noticed, was congenital and acquired stricture. In writing of or dealing with stricture, the idea intended to be conveyed by the term was that of a pathological change in the tissues, a deviation from the natural brought about by disease; hence he objected to the consideration of congenital malformations of the rectum, or to define them under the head of strictures of the same, for the reason that it was misleading to do so. It would be more to the point to call them atresias of the gut. Exception could also be made to the term acquired stricture; and it was very easy to understand how one could acquire a stricture as a result of venery, but difficult to understand how one could acquire a spasmodic or cancerous stricture.

If he were asked what was the prime cause of stricture of the rectum, he would answer, inflammation. What caused the inflammation? In many cases he did not know, but ordinarily syphilis, cancer, and trauma, if by trauma would be meant a wound or lesion from any or many causes. Outside of the two first named, cancer and syphilis, he was satisfied that no one could tell the cause that originated the stricture.

He wished to reiterate that, outside of these two well-recognized causes for stricture of the rectum, he was not prepared to admit any other as a well-known, recognized, indisputable cause.

The early symptoms of stricture in the rectum were very obscure and confusing. Indeed, no stricture existed at all in the pathological changes going on in the gut which conduced to this state. The great trouble was that the early symptoms were so masked, or entirely *nil*, that no attention was paid to them by the patient, that when he was forced to consult a physician a very decided stricture might exist. The changes made manifest in the rectum were those of inflammation, and if from cancer, the condition of the blood vessels and the gradual deposit of the morbid material, together with infiltration of the tissue, went on so slowly and insidiously that for a long time there were really no symptoms. When the stricture was within four inches of the sphincter muscle, it was easily diagnosed, whether malignant, be-

nign, or syphilitic, the finger would detect it. It was a very different matter, however, to determine its character, and yet to a certain extent the treatment depended upon it.

He desired to say that in his opinion fully sixty per cent of the strictures of the rectum were due to syphilis. Not venereal in the sense that many would have us believe, namely, by the infection of the rectum by chancreous pus, or by direct contact, but as a secondary deposit, the result of constitutional disease. As a means of diagnosis, the clinical history and observation of the case had much to do with forming a correct opinion. If it was ascertained that the patient has constitutional syphilis, I would consider that it was a strong point gained. I do not wish to be understood as saying that in every case where both syphilis and stricture exist that the latter was caused by the former, but undoubtedly in the vast majority of cases this was true. Indeed, so firm was he in this belief, that if it was a question between cancer or no cancer, and it was decided that it was not malignant, ninety-nine out of every one hundred cases would prove to be syphilitic; for the reason that stricture, the result of benign ulceration, did not resemble in the least stricture from malignant deposition. To the contrary, syphilitic stricture did, to a degree, in its pathology, resemble malignant growths. To be plainer, malignant disease and syphilitic disease invaded the rectum as a deposit, infiltration of the sub-mucous tissues, etc. Ulceration here was secondary to the deposit caused by the friction of the passage of feces, or the breaking down of the tissue, the result of the disease *per se*. Benign ulceration began with the damage done to the mucous membrane, and the plastic infiltration was secondary to it, the reverse of both the malignant and specific disease.

*Celiotomy for Rupture of the Parturient Uterus* was the subject of a paper read before the Surgical Section by Dr. Henry C. Coe, of New York City.

Although the literature of this subject is quite exhaustive, most authors deal with the etiology and pathology of rupture of the uterus rather than with the treatment, and much of the teaching with regard to the latter antedates



the era of modern abdominal surgery. The writer feels some hesitation in writing upon this theme, as it has been already ably presented to the American Medical Association by Dr. Wm. H. Wathen and Dr. C. A. L. Read in papers read before the Obstetrical Section. The writer's purpose in reintroducing the subject before the Surgical Section is to have it discussed from the broad standpoint of general surgery. This is entirely proper, since rupture of the uterus is to be considered in the same light as rupture or other lesions of any other of the abdominal viscera. It is pre-eminently a surgical emergency, and should not be studied from its gynecological or obstetrical side alone.

When Lawson Tait feels justified in proposing Porro's operation as the proper treatment for placenta previa we may well ask, "Is simple expectant treatment applicable to the far more formidable obstetrical complication, rupture of the uterus?" Note that the paper deals with rupture of the parturient uterus, and not with injuries of the organ before labor. This is an important distinction to be borne in mind in the discussion. The writer bases his paper entirely upon his personal experience, that of four cases, seen within a period of eighteen months, in which abdominal section was performed. One case was successful, the patient being now in perfect health.

CASE 1 (reported *in extenso* in New York Medical Record). Rupture due to undue interference in the first stage (forceps and attempted version), the child being of unusual size. Operation two hours after the accident, the patient being in collapse from active internal hemorrhage. The child's head had escaped from the rent, which extended from the cervix through the left broad ligament, half way to the fundus. Child extracted through the rent, after application of rubber cord. Uterus removed and pedicle treated by the extra-peritoneal method. On account of extensive laceration the entire stump sloughed out, but the patient made a good recovery.

CASE 2 (cause of lesion identical with that in Case 1). Injury not recognized until twenty-four hours after the birth of the child, when the patient was already septic. Celiotomy: Transverse tear on posterior aspect four inches long

in lower segment, with commencing peritonitis. Rent sutured, and thorough irrigation and drainage. Death from shock twelve hours later.

CASE 3. Moderate contraction of anterior conjugate, with large child. High forceps unsuccessful. Delivery after difficult version. In removing an adherent placenta the accoucheur withdrew a coil of small intestine, which prolapsed through a rent in the posterior wall of the uterus. It was replaced, as was supposed, and the opening was plugged with iodoform gauze. Abdominal section was then regarded as unjustifiable on account of profound collapse. The writer saw the patient eighteen hours later. Found her in fair condition, the upper portion of the vagina being filled with intestine. He proposed and performed celiotomy at once. There was a transverse tear posteriorly in the lower segment, extending from between the bases of the broad ligaments. It was too extensive to suture, so both broad ligaments were clamped and the uterus was extirpated *in toto* in five minutes. It was found that the intestine had not been replaced, but had been nipped in the edges of the rent, so that at least three feet were black and gangrenous. Irrigation and gauze drainage *per vaginam*. Death from shock ten hours later.

The above were private cases.

CASE 4 (Maternity Hospital). Spontaneous rupture during normal labor not recognized. Collapse five hours later, but no external hemorrhage. The writer saw the patient twelve hours after the accident and diagnosed rupture of the uterus with internal bleeding. A consultation of the attending staff was held, and the unanimous opinion was that there was an extensive laceration into the left broad ligament, and that active hemorrhage was in progress, which it was necessary to arrest. There was doubt as to whether the rent extended into the peritoneal cavity or not. Exploration advised. This was conducted rapidly. No blood found in the abdominal or pelvic cavity. There was an immense hematoma of the left broad ligament, extending upward into the corresponding iliac fossa. Abdominal wound closed and vagina tamponned with gauze, although there had not been any external hemorrhage whatever. Death from shock. Here

follow extended references to the literature of the subject, from which and the cases reported are drawn the following inferences:

Many cases of spontaneous rupture are doubtless unrecognized by the general practitioner. Profound shock after delivery should always awaken suspicion, even if there is only moderate external hemorrhage, and a thorough examination should be made. Text-books give rules for recognizing rupture only during parturition.

The rules laid down for the treatment of rupture are uncertain and confusing. The tendency of the practitioner is toward purely expectant treatment. He would pack the vagina with gauze, and wait. This course is too often fatal. The emergency is a surgical one, and is to be treated according to the ordinary rules of surgery. The fact that successful cases of celiotomy for rupture of the parturient uterus are comparatively rare is no more an argument against the operation than if it were applied to gunshot wounds of the abdominal viscera.

In analyzing the unsuccessful cases it will generally be found that the operative interference came too late, that is, from eight to eighteen hours after rupture. The writer's successful case was as unfavorable as could be imagined, but the patient was operated upon promptly, as soon as the lesion was discovered. Two methods of active treatment are now recognized and practiced, viz:

1. Drainage *per vaginam*.

2. Abdominal section, followed by either (a) drainage, (b) suture of the tear, or (c) amputation of the uterus. Simple drainage has some powerful supporters (mainly in the Vienna school), and the statistics are apparently convincing; but it is not capable of general application to all cases, and the indications are not always clear, because without opening the abdomen it is frequently impossible to determine the following important points:

1. The nature and extent of the tear.
2. The presence of active hemorrhage.
3. The presence of blood and amniotic fluid in the peritoneal cavity. (It is assumed that the uterus has been amputated.)

The writer thinks that abdominal section is indicated under the following conditions:

1. Before the uterus is emptied.

- (a) When the placenta or any portion of the fetus has escaped through the rent. Attempts at manual delivery only increase existing shock and destroy the patient's chances after section, as invariably shown by records of unsuccessful cases.

- (b) Where there is evidence of progressive internal hemorrhage.

2. After the uterus is emptied.

- (a) When there is extensive prolapse of the gut through the tear, as in Case 3.

- (b) In all complete lacerations (especially in those involving the broad ligaments) except small tears low down near the vaginal fornix, as in Case 2, where good drainage can be maintained.

- (c) In incomplete tears in which the broad ligament is extensively involved, as in Case 4, and there is evidence of progressive hemorrhage. This point must remain *sub judice*. Only one other besides the writer (Peters) has opened the abdomen in such a case. His patient died, and the report of the case provoked considerable adverse criticism. In the discussion before the Vienna Obstetrical Society only Gustav Braun expressed the opinion that section was justifiable when there was evidence of progressive internal bleeding and it was not certain whether the tear was complete or not.

Parvin's summary is a comprehensive one, viz: "Probably the solution of the question is this, that where the tear is in such a position that vaginal drainage is perfect the abdomen need not be opened, but if such drainage is impossible or imperfect then section is indicated."

What shall we do after opening the abdomen?

1. Arrest hemorrhage either with forceps or the temporary rubber ligature.

2. If the tear is small (two inches) and is low down in Douglas' pouch, drainage *per vaginam* may be indicated.

3. If the tear is clean cut, without contusion of the edges, and does not involve cervix or broad ligaments, it may be closed with deep and sero-serous sutures.

4. If the tear is not low down, is extensive, with contusion of the edges, and especially if a portion of the fetus protrudes, amputation of the uterus, with extra peritoneal treatment of



the stump, is indicated. The child can be abstracted through the rent before removal of the uterus (Prevot) or afterward (Porro).

5. In extensive transverse tears in the lower segment (as in Case *c*), and in tears beginning in the cervix and extending upward through the broad ligament, the writer would strongly urge the propriety of total extirpation of the uterus as the operation *par excellence*, as it is in many cases of hystero-myomotomy, for the following reasons:

(a) It requires less time than Porro's operation, and is quite as easy, especially if the patient is placed in Trendelenburg's posture. There should be no great shock or loss of blood.

(b) All the contused tissue is removed, which if left behind the stump will inevitably slough and imperil the life of the patient, as in Case 1.

(c) Drainage is perfect. After thorough irrigation and toilet of the peritoneal cavity, it can be closed, drainage being maintained *per vaginam* with iodoform gauze, as after vaginal hysterectomy.

The writer deprecates any intention of recommending a heroic method of treatment to the entire exclusion of the more conservative. He is an avowed conservative in abdominal surgery, but believes that rupture of the parturient uterus is a desperate emergency, in which a fatal termination is the rule, and that it requires prompt and energetic treatment according to the rule of modern surgery. The fact that the statistics of celiotomy in these cases have shown a large mortality is not an argument against the operation. In every case the accoucheur, if not himself a surgeon, should without an instant's delay summon experienced counsel and explain to the family that immediate resort to abdominal section may be necessary. Only by prompt interference can we improve statistics, and thus elevate the operation above the level of a hopeless and apparently unnecessary surgical experiment.

E. S. McKee, of Cincinnati, Ohio, read a paper on the Clinical Teaching of Obstetrics in America.

Entering into this subject in a spirit of criticism, the doctor found much to commend. The improvement has been marked since he last had occasion to investigate this special field.

True, there is still much room for advance, but we have cause for encouragement. Of all the civilized countries on the globe, our own, usually the leader, proved in this instance the laggard. There was some excuse for this, that the time for study was too short, funds too meager, the danger in a lying-in hospital too great, and the population too small and scattered to admit of obtaining material for the clinical teaching of obstetrics. These conditions exist at present, but in a much more limited degree. Every city in which the existence of a medical college should be condoned offers material which needs only to be grasped. This is being utilized by such well-known institutions as Harvard, the College of Physicians and Surgeons of New York, Bellevue, Jefferson Medical College, University of Pennsylvania, College of Physicians and Surgeons of Baltimore, and the Medical College of Ohio, at Cincinnati. In this latter institution I have had some experience in laboring in the field in which the pioneer work had already been done by my colleagues, Drs. T. A. Reamy and E. G. Zinke. The experiences of these gentlemen in starting the Obstetrical Clinic of the Medical College of Ohio, as well as some of my own in the same clinic, would furnish some interesting items for this section did time permit. Let us liken it to the labor of the primipara.

In many other medical schools of our country the science of obstetrics is admirably taught by pictures, models, and illustrations of various sorts, but the vast majority of medical students in America graduate without ever having witnessed a case of labor. Till within the last three or four years the majority probably equaled ninety-nine per cent. Many of our best teaching institutions have maternities connected with them. This is well, for here material is collected in small compass, and the student can see more in less time, being also under the close supervision of competent instructors. Here he can be carefully inducted into the arts of inspection, mensuration, auscultation, percussion, and indigitation. Then too the outdoor obstetrical clinic has its advantages. There is a close similarity between this and the first experiences of the student in his practice. He will first be called to the hovels of poverty, where he must

depend upon himself and where he is developed. It would be well for this training to follow that in the maternity, should both be at command. The ideal teaching of obstetrics is a course of didactic lectures with quizzing, the observation and conduct of a number of cases in a maternity under the careful supervision of a teacher, quizzing following each case, the student making a written report; then outdoor obstetrical work, where the student is left on his own resources, instructed to call his teacher in case of complications, which instruction may be omitted with especially diligent students after considerable experience.

Would it not be wise for this section of the American Medical Association, the light and guide of the American medical profession, urging it on to higher and grander views of medicine, to declare with one strong voice that the clinical teaching of obstetrics should be a part of the regular course in every recognized medical college in America. With the seal of such approval those laboring in this field will be given great strength, courage, and hope.

My Fourth Conservative Cæsarean Section was the subject of a paper by Dr. H. A. Kelly, of Baltimore, before the Obstetrical Section. The patient was dwarfed and rachitic, thirty-five years of age, weighing one hundred and fifteen pounds, and fifty-two inches in height. Head large and angular with prominent forehead; body long and legs short, with marked outward curvature of the thigh-bone, giving a distinctly waddling character to the gait. The previous history has been illumined by the fact that she had been paralyzed for a long time, beginning in her eighth or ninth year. She never grew any after that. The child was taken out alive, and is still living and doing well, as is also the mother, who recovered without an untoward symptom. The details of the operation are given. This makes the fourth case for the doctor in three years; all the patients being alive and well at the present time.

The Use of Cocaine in Gynecological Surgery was the title of a paper by Wm. H. Hunnison, of Cleveland, O. He uses it in dilating and curetting, first giving a tablespoonful of whisky or brandy. Fill a hypodermic syringe full of a four-per-cent solution with two minims of pure

phenol to each half ounce of the solution, inject five minims into the posterior lip, wait two minutes, then with the bullet forceps, which will be painless, secure a firm hold. Inject into several portions of the cervical canal an amount equal to about twenty minims, dilate till can inject ten minims of a ten-per-cent solution into the uterine cavity. He has not given an anesthetic, save cocaine in dilating the uterine canal, for the past three years, and his operations have included many primiparæ. In trachelorrhaphy inject the angle and surfaces you wish to denude, and you can operate with no pain at all. In perineorrhaphy he uses the split flap operation, and with one injection of thirty to forty minims of a four-per-cent solution he anesthetizes the whole field. He quiets his patients by telling them he will give them chloroform if they can not stand it, but has never had to do so. Has had unfavorable symptoms from the cocaine, which vanish very quickly after the administration of stimulants. He has dilated the urethra for fissure and irritable carbuncle with but slight pain. He had assisted at an Alexander's operation, where two grains were injected, one in each side at intervals of one half hour. The patient experienced but slight pain. He then reported a case where he performed the operations of trachelorrhaphy, anterior and posterior colporrhaphy, and perineorrhaphy at one sitting with cocaine as an anesthetic. The whole time required in making the four operations was one hour and forty-five minutes, and seventy-five minims of a four-per-cent solution of cocaine were used, or three grains.

Minor Uterine Surgery was the title of a paper by Dr. J. M. Baldy, of Philadelphia. He thought that Emmet's operation for lacerated cervix should in most cases fall into that deserved disuse which has come to splitting up the cervix for sterility and dysmenorrhea. He thinks upon the whole it had been better for womankind had the uterine sound never been invented. He thought the careful study of bimanual palpation would largely do away with the sound. Taking it all in all he decidedly approves of gynecological minor uterine surgery in the field to which it is applicable, but it must be borne in mind that this field is a



limited one, and one which becomes more and more narrow as our diagnostic resources increase.

A Contribution to the Normal and Pathological Histology of the Tubes was the subject of a paper by Dr. J. Witridge Williams, of Baltimore, who insisted there were three layers of muscular tissue instead of two. A twisted condition of the tube, he said, showed the border line between health and disease. The twists show an infantile condition of the tubes. This is found in women who are poorly developed sexually, and may be accompanied by sterility. The paper was accompanied by a number of well executed charts.

#### OFFICERS.

The following officers of the Association have been elected for the ensuing year: President, Dr. H. O. Marcy, Boston; Treasurer, Dr. W. E. Taylor, California; Secretary, Dr. W. B. Atkinson, Philadelphia; Chairman of the Committee of Arrangements, Dr. H. O. Walker, of Detroit, Michigan, at which place the meeting of next year will be held, commencing on the first Tuesday in June, the 7th.

[TO BE CONTINUED.]

### MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated meeting, held Thursday, March 26, 1891.

The 723d meeting of the Society was called to order by First Vice-President Dr. F. C. Bressler. Dr. Geo. J. Preston was elected to membership.

Dr. John N. Mackenzie made some remarks on Some of the Dangers of Nasal Obstruction. He said it is recorded in Genesis that when God made man, "He breathed into his *nostrils* the breath of life." The description given by some, that the nose is the organ of smell, is too terse. Olfaction is but a small part of the functions of the nose. Less than one third of the area concerned is devoted to olfaction. The nose is not only the organ of smell but is absolutely essential to respiration. Inspired air receives nearly all of its warmth and a still larger proportion of its moisture from the erectile tissue of the nasal passages. The impurities of

external air are gotten rid of in inspiration by the nasal chambers, and the erectility of the tissues of the nose has a good deal to do with this function. In crowded assemblies or in a dusty atmosphere the nose is apt to clog up by its erectile tissue acting as a sentinel at the beginning of the respiratory tract. He was thoroughly convinced that this is one of the varied functions of the erectile tissue of the nose. An obstruction in the nose would cause (1) an interference with smell, (2) there would be an impediment to respiration, the individual would breathe more or less through the mouth, the air thus breathed would be cold and filled with impurities, common sense would dictate that that would have a deleterious effect. Now in this climate where great changes of temperature are so sudden, where we lie down in June and get up in January, the secret of success in treating nearly all inflammatory diseases of the throat is to remove the cause in the nose, and the trouble below will then heal more rapidly.

Some years ago Sir Morrel Mackenzie made a tour of this country, and when he went home he wrote an elaborate article on post-nasal or American catarrh. He said that in the West it was due to the dust in the atmosphere, but the speaker was of the opinion it was due more to the sudden changes of temperature than to dust. Not only does the nose play an important part in respiration, but it conveys atmospheric air to the middle ear through the eustachian tubes. The middle ear may be considered as an accessory cavity to the nasal cavity. Not only during the act of deglutition is the middle ear supplied with air, but also during quiet respiration; this has been proven by experiment. An obstruction in the nasal cavity interfering with the admission of air to the middle ear will cause an inward collapse of the drum, then follows congestion, then an exudation of serum, then otorrhea. So frequently is the otorrhea of young children dependent on nasal obstruction, that if one was brought to him suffering with an otorrhea or was a mouth-breather he would in nearly every case, without any preliminary examination, introduce the forceps in the naso-pharynx and bring out a bit of adenoid tissue. Nasal ob-

struction is often the cause of eye troubles, conjunctivitis both hyperemic and phlyctenular, and it is also said to be the cause of keratitis. This is said to be due to an extension of the inflammatory process through the nasal duct; but he thought that explanation absurd, and was of the opinion that these troubles were due to a reflex nervous influence. In the same way is explained some of the middle ear troubles. Some authorities say that an obstruction in one nostril may cause an asymmetrical development of the cranium by reflex interference with the nutrition of the parts. Nasal obstruction in young children interferes so materially with their development that if not corrected early in life it may mean an irremediable condition in after-life. In fact it may be accepted as axiomatic that free breathing through the nose is absolutely essential to physiological life.

Dr. Herbert Harlan said, in reference to ear troubles caused by adenoid vegetations closing up the eustachian tubes this is easy of acceptance, because that is a simple physical condition, but he could not see how an obstruction anteriorly would cause an ear trouble if the naso-pharynx is not interfered with. If you inflate the middle ear by the Valsalvian method and then breathe slowly and regularly, the fullness in the ears will not disappear, whereas it will disappear immediately on swallowing. This experiment negatives the admission of air through the eustachian tubes during quiet respiration. As to the eye troubles, he might recognize some connection between a nasal obstruction and an epiphora, a mucocoele, or a conjunctivitis, or even an ectropion, but he could not see how a keratitis could be caused thereby. A keratitis might be associated with, but hardly caused by, a nasal obstruction. In all the other statements of Dr. Mackenzie he was in thorough accord. He thought that nose-breathing was of so much importance as to warrant our training the young, if necessary, to breathe through the nose.

Dr. J. F. Martenet said, in his experience in the throat clinic of the Woman's College he had come to appreciate the importance of nose-breathing, as laid down by Dr. Mackenzie. In nearly all cases of bronchitis in children

we find nasal obstruction playing an important part in their causation; and at the Hopkins Hospital Dispensary we refer probably fifty per cent of these cases to Dr. Mackenzie's department for treatment. In one case of a boy eight years old, who was a mouth-breather on account of anterior nasal hypertrophies, the boy had pertussis and developed a well-marked case of emphysema, and treatment directed to to the nose in this case has had good effect.

Dr. John W. Chambers said the question as to the patency of the eustachian tubes is of interest. If the tubes are open, it would be a physical impossibility for a current of air to pass over the mouth of these tubes without affecting the air in the tubes and thus affect the air in the middle ear. If, in plugging up the anterior nares, the current of air instead of being through the nose and naso-pharynx would be directed through the mouth, and the naso-pharynx would then become cut off, there would then be so little air current through the naso-pharynx as not to affect the air in the middle ear. He said he had removed the superior maxilla on one side in a woman, and as a result she can not swallow at all, and careful tests of her hearing show she can hear as well on that side as on the other. Now if good hearing depends on equal air pressure on the two sides of the drum membrane, and if air is admitted to the middle ear through the tubes only during the act of deglutition, how does this woman get air into her ear? In answer to inquiry he said that cicatricial contraction could not have drawn the mouths of the of the tubes open, as the operation did not involve any parts that would have this effect.

Dr. A. D. Mansfield said facts were of more value than theory; that in Valsalvian inflation the fullness of the ears will not pass off until you swallow, as stated by Dr. Harlan. He had noticed that in ascending in a balloon or attaining to great heights in Switzerland he had experienced pain in the ears from the unequal pressure on the two sides of the drum membrane, which was not relieved until he swallowed, and that in inflating the ears of a patient with the Pulitzer air-bag the patient will not hear so well until he is told to swallow. He thought that these facts went very far to



prove that the eustachians open only during deglutition.

Dr. D. W. Cathell said he had read that a post-nasal catarrh is usually the cause of congestion of the mucous membrane extending up the eustachian tubes, which makes it difficult for the air to enter the middle ear, and thus producing what has been termed pharyngeal deafness. He agreed with Dr. Mackenzie as to the importance of nose breathing, and did not think he had overestimated its importance. It is a well-recognized fact that there is an interference with nutrition in the young who are mouth-breathers. The chest development is not full, there is a poor development of the face, and even the arch of the palate will hardly accommodate the sixteen teeth, which are apt to become crowded.

Dr. H. G. Harryman said he saw an interesting case of emphysema in a child eleven years of age, caused by a chronic bronchitis which was set up primarily by a hypertrophic rhinitis. The obstruction was on one side only, and the emphysema was more marked on that side.

Dr. F. C. Bressler said he thought that many of the evils following nasal obstructions in the young were caused by a too free use of water in the first hour after birth of the infant, he thought that the liberal washing they were treated to caused many of the coryzas that very young children have, that are the starting points of these troubles. He directs the nurse to wash the eyes only, and to wrap the baby well and allow it to become acclimated for a while before washing.

Dr. Mackenzie said he wished to emphasize the statement that inflammatory troubles of the middle ear are very frequently dependent on nasal obstruction. The irritation caused by the obstruction induces an inflammatory condition of the naso-pharynx; this continued inflammation will cause a fatty degeneration of the tensor-palati muscle and the eustachian will not be acted upon, thus involving the middle ear. Of course the walls of the eustachians are in contact in a state of rest, like the walls of the vagina, for instance, but that air is admitted into the middle ear during quiet respiration has been proven by experiment in Germany.

He was sorry he could not recall the names of the authors.

Dr. A. D. Mansfield then read a paper on The Use of Hydrogen Peroxide in Otorrhea.

Dr. Harlan said he began using hydrogen peroxide several years ago, and an objection to its use in otorrhea is that it takes so long to clean an ear with it. Otorrhea is only a symptom, and we must not forget to address our remedies where other energetic treatment is necessary. If the otorrhea is caused by a simple hyperemia then the hydrogen peroxide will cure it, but many of these cases get well without any special treatment. When hydrogen peroxide is used simply as a cleansing agent then it is an exceedingly good remedy. The general practitioner can order it (Marchand's) and let the nurse devote the time necessary to cleaning the ear, and if it is done thoroughly there will be less chronic granular and polypoid otorrheas.

Dr. Wm. H. Morris said he had used the drug in gonorrhea and (diluted one in three) in the air-passages of children with good results. He had very little experience in otorrhea. He had tried it in chronic ulcers of the legs, but he prefers pyoktanin for that purpose.

Dr. Mansfield said, in conclusion, that of course, as otorrhea is only a symptom, the condition causing the otorrhea must not be lost sight of, and the proper remedies addressed to it. The object of his paper was to call the attention to hydrogen peroxide as a cleansing agent in this particular trouble.

Dr. F. C. Bressler then exhibited some pathological specimens, and said these specimens are from a lady aged forty-nine, single, dressmaker by occupation. Her family history is good. He was asked to see her one year ago, she having slipped and injured her patella. She was nervous, anemic, spare built, otherwise presented no other evidence of illness. She improved under treatment, and he heard no more of her until about six months ago, when he found her covered with purpuric spots, the largest about the size of a fifty-cent piece. She stated that she had been suffering with epistaxis for some time. In addition to her purpura she developed some ascites, also edema of both ankles. Appetite good, bowels

regular, urine not examined, and no pain anywhere. After three weeks' treatment she improved so that she was able to visit his office. Last November he was again sent for, and found her suffering with considerable pain in the abdomen, some ascites, edema of the feet, persistent epistaxis, anemia, with a jaundiced hue, and anorexia. Upon examining her abdomen he discovered an enlarged spleen, liver contracted, abdomen very sensitive, no lung trouble, some systolic hemic murmurs, likewise cardiac hypertrophy. Urine albuminous, temperature about normal. He diagnosed hepatic sclerosis, splenic enlargement with secondary interstitial changes throughout the system. She was placed upon various lines of treatment, but in spite of every thing that was done she finally succumbed, having wasted away to a mere shadow, while her ascites became excessively marked toward the later part of her disease. Careful inquiry failed to elicit any history of syphilis or alcoholism. She gave a history of malaria during her younger years. She stated that she had taken morphine for years, as she claimed it was the only thing that relieved her neuralgia. A *post-mortem* was allowed to be made of her abdomen. The spleen, three times its original size, contracted irregularly, upon section felt hard and gristly. Kidneys contracted, capsule adherent, stomach dilated, and pyloric end bound by adhesions to the under surface of the liver; pancreas small, hard, and gristly on section; liver, left lobe entirely contracted to a fibrous membrane, right lobe contracted to one fourth its original size; contraction consists of nodular masses varying in size from a pea to a hen's egg; each nodule is hard, fibrous, and separated from the other by plainly marked bands of interstitial tissues. The diaphragm is so bound to the upper surface of liver as to make it impossible to separate them. Gall bladder has almost disappeared, and only a small, fibrous cord, like an artery, is left to indicate its former place. Duodenum and pyloric end of stomach united to under surface of right lobe of liver. Bowels matted together to a moderate degree, vermiform appendix enlarged and distended with foreign matter, veins varicose. Uterus normal, of virgin size and appearance, ovaries

cystic and some ovarian tissue still present; but upon those surfaces is found a papillary growth about the size of a dime and about one third of an inch in depth, these have undergone fibroid changes.

This case presents several interesting phases, namely, in the absence of a specific history, alcoholic, etc. What produced this sclerotic trouble? It is known that morphia can induce granular kidney. If it can induce such a condition, it is equally probable that such changes can take place in the liver. He therefore believed that in this patient sclerotic changes were induced by long-continued morphia abuse. Another point of interest is the paucity of symptoms; had it not been for the persistent epistaxis and ascites Bright's disease would have answered in order to account for the few symptoms present. The superficial papillomatous growths upon both ovaries are interesting owing to their rarity.

J. WM. FUNCK, M. D.,

*Res. and Exp. Secty*

#### ELECTRICITY: WHEN OF POSITIVE SERVICE TO THE GYNECOLOGIST.

The following is an abstract of a paper read by Andrew F. Currier, M. D., before the Academy of Medicine in New York, January 21, 1891:

The testimony upon this subject is conflicting. Some have opposed it from prejudice and bias, and others have advocated it with an enthusiasm which revealed indiscretion and unwisdom. Satisfactory knowledge can be gained only by experience, and this necessitates no little expense for apparatus, and time and labor in order to comprehend the physical laws governing electricity. As in religion, science, art, and politics success as a rule only comes to those who follow up the subject persistently and thoroughly. The patient must also submit to such conditions as will permit a fair test of the agent. The subject is considered under these headings: (a) Necessary outlay and apparatus; (b) indications; (c) contra-indications, cautions, and objections. The faradic current is indicated when increased muscular tone or contractile force is desired. Incidentally will come improved vascularity and nerve



energy. The galvanic current is indicated as an astringent, hemostatic, demetrient, admetrient or sedative. For some conditions, for example pain, either current may be effective. All battery currents are based upon Ohm's law, that is, that the available battery force equals the entire force generated by all the cells, divided by the resistance offered by the wires, the fluid in the cells, in fact every thing which hinders the passage of the current. The unit of usable current in electro-therapeutics is the milliampere. The requirements for a faradic battery are that it be small, simple, clean, and cheap. Caiffe's costs but a few dollars, and is perhaps the best there is. The requirements for a galvanic battery are steadiness of current, cleanliness, simplicity of construction, and durability. The writer has never found a portable battery which answered these requirements, but does not assert they do not exist. To answer the conditions mentioned, there should be a large number of large cells in continuous connection. Either the Law or the Leclanche cells will give satisfaction, the former being more cleanly and more durable. A rheostat and a milliampere-meter are indispensable, and the writer is well pleased with the Bailey rheostat and the Barrett meter, graduated to 250. The connecting cords from battery to patient should be long enough to allow patient to be moved about without danger of breaking circuit and giving shock. For an abdominal electrode, Martin's is the best. There are many varieties of uterine and vaginal electrodes, those designed by Apostoli being very good ones. The writer has designed one of aluminum, with a cylindrical removable platinum tip, the shaft being covered with thin rubber tubing. It is light, cheap, and flexible. The rheostat and meter rest upon a portable base, furnished with suitable binding posts and switch for changing polarity. The character and effect of the current at the two poles is essentially different. The positive pole will check hemorrhage and glandular secretion, the negative will not. The positive pole will corrode all but the noble metals, the negative will not; the positive pole is acid, the negative alkaline; at the positive pole oxygen is liberated in the electrolysis of water, at the negative, hydrogen.

The writer's paper contains an analysis of twenty-three cases in which the indications for treatment were: (1) Pain, (2) hemorrhage, (3) inflammatory exudate, (4) sterility, (5) dysmenorrhea, (6) super-secretion, (7) hysteria, (8) uterine sub-involution, (9) uterine sub-nutrition.

For pain the positive pole should be within the uterus or vagina, and a weak current is better than a strong one. A good average is thirty milliamperes used from four to eight minutes. The intervals of application should depend upon the duration of the periods in which the pain is absent. Pain was relieved in two cases in which it persisted after removal of the uterine adnexa, in one each of uterine myoma, pyo-salpinx with ovarian apoplexy and endometritis, and two of pelvic peritonitis with exudation. For hemorrhage the positive pole is believed to be unsurpassed. It was used in a case of interstitial myoma and in one of malignant disease of the uterus and omentum. Four cases were treated for inflammatory exudate, and in three the exudate was disintegrated and absorbed; but as the diseased organs which had been confined by it became more mobile they also became larger and more sensitive. In five cases sterility was treated with the faradic current. Impregnation and delivery resulted in two. Dysmenorrhea may be relieved by either the positive galvanic pole or by faradism. Three cases are narrated, but in only one was the result decidedly favorable. For super-secretion the positive pole is preferable to the powerful caustics and escharotics, and yielded good results in three cases. In two cases hysterical symptoms were much modified in addition to benefit which was derived for more palpable lesions. Sub-involution was successfully treated in one case, the uterus contracting firmly upon the bi-polar electrode of Apostoli and with the faradic current. Uterine sub-nutrition in connection with hard anteflexed uteri, and usually associated with amenorrhea, dysmenorrhea, or sterility, will be benefited by the faradic current. Five cases were treated, and all but one received positive benefit. Under the head of cautions, contra-indications, and objections, nausea resulted in one case, and a similar observation has often

been made by others. The passage of the galvanic current may cause faintness, which may be slight or profound, and dizziness. In a case of exophthalmic goitre, with rapid heart action, collapse was imminent on two occasions. An irritable heart, such as is usually present in the last mentioned disease and with certain chronic gastric disorders, contra-indicates the use of electricity. Malignant disease within the abdomen is a contra-indication, or at least proved so in one case. Small dry electrodes should not be applied to the abdomen, but large wet ones. The former will occasionally produce burning. The method of rapid reversals of the galvanic current is of limited usefulness and should not be used with nervous women; the shocks may be very harmful. The electro-puncture of fibroid tumors means possible sepsis with its consequences. If it is electricity and not inflammation and sloughing which reduce the nutrition of a tumor, it would seem to be unnecessary. Galvano-cauterization of the uterine mucous membrane seems to furnish the advantages of puncture without its danger. Electro-puncture is also disapproved for hematoma and hematocele as dangerous, tedious, and inefficient as to its results. Electricity is the handmaid and not the mistress of surgery, a valuable assistant and increasing in value with experience, but one which demands rational, careful, and intelligent use.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Hydrophobia in Paris shows the effects of careful official supervision and M. Pasteur's treatment. Only one person succumbed to this terrible disease last year, a contrast to the 22 deaths in 1885, the maximum during the last decade. The number of animals affected also declined to 203 from 863 only two years before. M. Pasteur's system is pronounced most efficacious by the Paris authorities, for out of 95 persons belonging to the Department of the Seine who were treated at the Institute during the twelve months one alone died.

Surgeon Parke has had good reason for being

curious regarding the nature of the arrow poison used by the Pigmy race in Central Africa, for of all the men wounded by arrows so prepared, at the action at Ava Sheba, one only survived, and his recovery was attributed to the fact that the poison was immediately sucked from the wound. After much difficulty Mr. Parke finally contrived to gather some hints from the information of a Pigmy woman who followed his caravan. It was long before she could be induced to show him the five plants which make up the compound, together with the method of preparing the poison, and then only on the condition that no other person should accompany them to the place where they grew. The ingredients consist of a bark, a large green leaf, a thorny creeper, a green stem, and a bean-like seed, specimens of which have enabled Mr. Holmes, of the Pharmaceutical Society's Museum, to identify some of them. The materials are pounded together into a paste, which, being stuck on the tip of the arrow, dries and forms a hard crustlike clay. The symptoms exhibited by the sufferers appear to be those of tetanus. Samples have also been secured of certain antidotes in use among the natives, consisting of bark, leaves, and a white powder; but beyond the fact that the white powder has been found by Sir Charles Cameron, of Dublin, to be simply wood ashes, little progress has yet been made in identifying these substances.

Attention has been drawn to the alleged fact that cabs and omnibuses are literally hotbeds of diphtheria. Patients suffering from this disease being generally taken to the hospitals in public conveyances, the microbe takes up its abode in the cushions, and even the specks of dust flying about in the carriages sometimes contain, it is said, whole swarms of them. Inquiry was last year made at one of the large hospitals, from which it appeared that out of 797 children with diphtheria taken there 375 came in cabs, 67 by omnibus, 13 in private conveyances, 195 on foot, and only 143 in the ambulance vans. To avoid this danger, it is suggested that every cab bringing to a hospital a patient affected with an infectious disease should be thoroughly disinfected at the driver's expense. The latter would then refuse to drive



these patients, who would be compelled to take ambulance vans.

In a case at the East End, in which a man took oxalic acid with fatal result, the jury expressed themselves pretty strongly, for it appears that a person with certain letters after his name which had led people to think him a qualified medical man, whereas he was not, had been called to the poisoned man, and being unable to do any thing beyond order the man's removal to the hospital, the delay was most serious. The jury thought it was a gross scandal, as probably the man's life would have been saved if a qualified man had been called. Was there no remedy for the poor under such circumstances? The coroner was afraid there was not, as any man might style himself doctor, and if he acted as one, with fatal result as in this case, a charge of manslaughter could be preferred. Beyond this nothing could be done, and the jury expressed deeply their sense of regret at the existence of such a danger.

His Royal Highness the Prince of Wales and Her Imperial Majesty the Empress Frederick have initiated a movement which, in the expectations of its promoters, is destined to have remarkable results in procuring the abatement of the smoke nuisance, and consequently the death-rate in the metropolis. The boon which is offered to Londoners is the adoption of a fuel which is claimed to be absolutely smokeless, at a price which will not exceed that of ordinary coal. The smokeless fuel is in the form of cubes, which clearly and freely give off a yellow flame which gradually turns blue. At the time of the Prince's visit to the manufacturers the combustion appeared odorless and complete. There was a good deal of curiosity as to the system of manufacture, but the secret was not disclosed, except in so far that it was stated that the materials used were small coal, pitch, and a certain mineral, which were all mixed together warm in a disintegrator and then molded under pressure of two tons to the square inch.

The paper which Dr. Thresh recently read before the Society of Medical Officers of Health on the relation between manure and diphtheria should command the attention of all health officers. Dr. Thresh attributes to London refuse a peculiar potency for harm, as evidenced by

the occurrences of diphtheria held to have been caused by the filth. The paper did not profess to be an exhaustive statement of the case against this London refuse, but rather a preliminary to wider examination of the harmful properties which diphtheria possessed by the manure, and with a view of securing the co-operation of health officers in an endeavor to bring together observed facts connecting manure and diphtheria as cause and effect. Dr. Thresh instanced several outbreaks of the disease in Essex which have been held with greater or less certainty to have arisen from the unloading, carting, and storing of London manure in the proximity of the dwellings attacked, and he showed that he is by no means alone in his belief in the danger to health arising from the filth brought from the metropolis. Apart, however, from the direct causation of disease, London refuse has an odor "incomparably more vile than any other," so much so that Dr. Thresh "can at once detect where the manure is being used." The pungency is so great that at times the smell can "be perceived two miles away."

Mr. Edmund Owen has recently had under his care a child, four years of age, suffering from double *genu recurvatum*. The knees were hinged backward, and fixed so rigidly by the shortened quadriceps extensor that under chloroform it was found that the legs could not be brought down into line with the thighs. Mr. Owen attributes the deformity to faulty "packing" of the fetus, the presentation at birth being stated to be "head first with the feet on the shoulders." The patient, who could not stand, constantly sat with the backs of the feet resting on the collar bone. The fronts of the knees were marked by a wide retiring angle. The backs of the condyles of the femora and the intercondylar notches could be clearly made out beneath the skin of the popliteal space. Palliative treatment being of no use, each quadriceps has been divided just above the patella, the joint being freely opened. The knees were then flexed, and the wounds closed by continuous suture and dressed with wood wool, the limbs being fixed straight in a box splint. After the incisions were healed, massage and manipulations were employed. At the present time the child is able to stand, flexion can be

made to a right angle, and the patient is gradually gaining strength.

The annual meeting of the British Gynecological Society, which will take place at Newcastle-on-Tyne on June 18th and 19th, under the presidency of Dr. Robert Barnes, promises to be a most successful function. Among those who will read papers are Mr. Morison on Surgical Treatment of Diseased Uterine Appendages, Dr. Anvard on Some Points in the Treatment of Endometritis, and Dr. Reeves on the subject of Puerperal Septicemia.

A medical officer in the East Indian service states that the existence of a cholera demon is still firmly credited in certain districts of that empire. A native in a village near Allahabad recently assured him that the previous night his home had been visited by the cholera monster with a head like a large earthen pot. He and his brother drove away the spirit with bamboo clubs, and fired a gun to complete its defeat, as the creature fears noise. Some years ago, say the natives, three wizards enticed the demon into an earthen pot, and carried it to a neighboring hostile village to bury it by night. The rival villagers objected, and a fight ensued, during which the pot was broken and the demon again escaped.

LONDON, May, 1891.

### OUR BIRMINGHAM LETTER.

The Pathological and Clinical Section of the British Medical Association met at Birmingham, April 24, 1891, Mr. Priestly Smith in the chair.

The Association met in this city with a full and interesting programme. Among the visitors present was Dr. C. A. Kinkley, of Toledo, O. The first case was presented by Dr. E. N. Nason. The patient was a man, aged eighteen, who received a fall and shortly afterward developed a cerebral abscess, which was diagnosed, the skull trephined, and the pus evacuated, with excellent recovery. From Dr. Nason's narration of the case I noted the following points. The boy simply fell down on January 8th, and they thought he struck mainly the back of his head. From that fall the boy continued to have headache. He had, shortly after falling,

a rigor. Twenty-seven days after, on February 4th, the temperature rose to 103° and headache began on the right side. The pulse was then 64, and cerebration was slow, requiring about twenty seconds to get him to respond to questions. The mind was clear. His symptoms were pain in the muscles of the back of the neck, and sensory and motor paralysis of the left side. Eye muscles normal. He was very somnolent. February 9th, or thirty one days after the fall, the boy had another severe rigor and considerable convulsions. He showed marked cyanosis. By this stage of the case Dr. Nason diagnosed abscess of the brain in the cortical centers which govern the muscles of the left leg and arm, and also of the face. This abscess was located on the right side of the cerebrum, external to the internal capsule of the brain. The skull was trephined one inch behind the coronal suture and just above the temporal ridge. The dura mater bulged out of the wound and was pulseless. The operator cut through the dura mater and evacuated about one half ounce of pus. The trephined button of bone was not replaced. The boy had a five minutes' fit the same day. The temperature on left side was lower than the right. Two days after operation the patient was somewhat stiff on the left side, and his pulse was 58. Three days after the patient had pain in left arm, whereupon Dr. Nason drew off some serum from the wound and the boy suddenly regained power in the arm and leg. Five days after the operation the power in the wrist and fingers suddenly returned, and six days after the operation the paralysis was almost gone. The urine increased in quantity for fifteen days after the operation and was full of micrococci. It contained considerable blood. Thirty days after the operation the wound had healed and the boy was about well. The last muscles to regain power were those of the thumb. At the meeting last night the boy looked bright and happy. As this was a typical case, which showed marked judgment in diagnosis and skillful operative procedures, I will note some points which I gleaned from the talk on the case and from observing the boy, who was present.

(a) It was surprising to have an abscess



from such an apparently slight fall. (b) The location was also surprising, as the abscess was under the parietal bone, while the boy simply fell on the back of his head. (c) The abscess caused remarkable localized symptoms. The muscles of the face, leg, and arm were the only ones distinctly affected. (d) The diagnosis rested entirely on the knowledge of localized functions of the cortex of the cerebrum. It is a bright and hopeful day in medicine when a surgeon can cut through the skull and strike retained pus with a certainty. (e) In this case motor and sensory paralysis went hand in hand, which shows they are closely associated. (f) All motor power returned to the boy suddenly, *e. g.*, leg, forearm, wrist, finally fingers and thumb. (g) Pain preceded recovery of the legs and arms. (h) The left side was colder than the right (vasa-motor paralysis). (i) The inter-current hematuria during recovery. (j) The large numbers of micrococci found in the urine. (k) This case showed that cerebral abscess has a very varying temperature (98° to 104°).

Mr. Barling thought the abscess in this case occurred from hemorrhage and was involved by germs which caused suppuration, and that the variation of temperature was simply characteristic of meningitis in general.

Dr. Crooke said traumatic meningitis caused hematuria. He also said that various diseases caused micrococci to be in the urine. He had seen millions of micrococci in the urine of scarlet fever, but that these germs had been robbed of their pathogenic nature.

The remarkable diagnosis, successful operation, and excellent recovery of Dr E. N. Nason's case of cerebral abscess called forth well-earned applause.

Dr. Simon showed an enormous hydatid cyst obtained from the liver of a girl twenty-three years old. It had been diagnosed as a case of pleuritic effusion. The woman was operated on, and died in thirty-six hours from shock. The fluid from the cyst had flowed into the peritoneal cavity and no doubt killed the patient. This was Mr. Barling's view of the case. The views of the surgeons present concurred in the idea that in such large hydatid cysts the operation should be simply an incision with drainage. Much discussion arose *pro* and *con* as to whether

pleuritic effusions depressed the diaphragm. The majority expressed opinion that if the pleuritic effusion be quite large it would depress the diaphragm. Dr. Simon reported a case where the aortic valve was ruptured, and he showed the specimen. Dr. Crooke, pathologist, said, after examining the specimen, that it showed syphilitic lesions at the point of rupture. The man was a miller, and carried heavy sacks. His main symptom was dyspnea.

Mr. Marsh presented a typical specimen of intestinal obstruction causing death. He had performed a colotomy on the patient some time before, and the patient had brought on an obstruction by overeating, from which he died. The autopsy showed that a coil of small intestine had become adherent to the wall of the bowel, and by this adhesion its peristalsis was destroyed; it was a segment of gut paralyzed. The bowel lumen was not occluded, but as peristalsis was destroyed fecal circulation could not proceed. This is a type of Litter's hernia. It is curious to note how Mr. Marsh's case did so well for almost three weeks, when eating a little plum pudding will bring on fatal mechanical obstruction. Mr. Marsh did colotomy in this case preparatory to excising the rectum for malignant disease. I am glad to observe the dawning in the medical societies of the vast importance of intestinal obstruction after operation. I suppose that many physicians would hardly credit the statement that 1½ per cent of all laparotomies die from intestinal obstruction, but I offer this as gathered from the best statistics of the world.

Mr. Bennett May presented an instrument for collecting the urine from the ureters separately. The instrument met with a cool reception. This brought forth a discussion on the power of catheterizing the male ureters, which met with poor favor.

Dr. Crooke showed some splendid specimens of adeno-carcinoma of the sweat glands and colloid carcinoma of rectum. The doctor gave some excellent clinical remarks on such growths, and well he may, for of all places on earth Birmingham seems to me to have the most reckless and malignant growths.

Mr. Jordan Lloyd presented the most typical specimen of osteitis deformans. Men see few

such cases in a lifetime. The specimen was the calvarium femur and peroneus longus muscle of a woman aged forty-nine, married, with one child. She had been always well. Ten weeks before Mr. Lloyd saw her she noticed a little tumor growing on the scapula. This was removed, and she recovered. The calvarium was more than an inch thick in places. All traces of cranial sutures had disappeared. The bone was of a scarlet red color, showing that it must have had an enormous blood supply. The grooves for the meningeal arteries were much increased. At twenty-two years of age her head measured twenty-six inches (she reported). Fine cancellar bone tissue could be seen on the cut surface. Her mind was clear and normal. Mr. Lloyd noted that she was a rather irritable old woman. The femur showed similar pathology. Thickening and intense redness were the gross pathology. The peroneus longus was cancerous, as reported by the pathologist, Dr. Crooke. Jonathan Hutchinson and James Paget are the only two English writers of note on osteitis deformans, and they observe that the subjects of osteitis deformans are liable to malignant growths. Mr. Lloyd's case corroborates these views. The woman died from exhaustion from old age (premature). Mr. Lloyd had only seen five such cases.

Mr. Barling thought that the redness of the bone was a sign of some form of inflammation resembling tuberculosis.

Dr. Christopher Martin, Mr. Tait's assistant, showed a stone obtained from an operation for a supra-pubic cystotomy in a man sixty-one years old. The stone weighed two ounces. As Dr. Martin and myself assisted Mr. Tait in this operation, I can say that Mr. Tait did not distend the rectum or bladder in this case. Mr. Tait does not claim to use antiseptics in his work. In this case he did not shave the pubis. He simply cut down to the bladder through at least three to four inches of fat, then opened the bladder and drew out the stone with long forceps. He then stitched the bladder wall to the wound in the abdomen and put in a glass drainage tube. The fat on this man was enormous and offered very severe difficulties in the operation. However, those who have watched Mr. Tait operate for a few

months can not be otherwise than astonished at his wonderful skill and acquired dexterity. He is afraid of nothing and moves forward with rapid precision. I am sure that Mr. Tait has saved many a patient by rapid operation where a slow one would snuff out the little vitality left. I always note that Dr. Martin anesthetizes Mr. Tait's patients profoundly for abdominal operations, so no time is lost in vomiting. The patient is making a good recovery. The stone seems to be composed of uric acid and oxalates. The stone was lodged in a pouch above and in front of the prostate.

FRED B. ROBINSON, M. D.

BIRMINGHAM, ENGLAND, APRIL 27, 1901.

### NEW YORK AND BALTIMORE.

**Johns Hopkins Hospital: Sarcoma of the Neck—Skin Grafting—Supra-Pubic Operation—Abdominal Hysterectomy.**

It may perhaps be correctly said that no other American hospital has been planned and constructed with as much care as the Johns Hopkins at Baltimore, and it may also be said with equal certainty that very few if any other have been so fortunate as this one in the wealth of their endowment. From the mode of its construction and the external surroundings, space has certainly been a very small item.

Its interior bears a strong evidence of a careful and painstaking administration, and in every direction there are visible marks of the pride which every member feels and displays in his efforts to assist in conducting the institution upon the most approved and aggressive principles. In the face of all this we are somewhat surprised, if our information is correct, at the peculiar sewage disposal, which, owing to the absence of all other but surface sewerage in that city, is accomplished by piping the same from the hospital to a well at a certain distance from the building. It is hardly to be wondered that the correctness of this is questioned.

An unusually interesting recurrent sarcomatous tumor of the neck was recently operated upon by Dr. Wm. T. Bull, of the New York Hospital. The subject in question was a Peruvian of past middle age, who came on here for the removal of this growth, which had already been twice previously operated upon.



In one of the former operations, which was performed in Italy, cauterization was freely resorted to, from which resulted a considerable amount of cicatricial tissue which lent obscurity to the landmarks and additional difficulty to the present operation. The tumor, as it was previously inferred, involved both the carotid artery and pneumogastric nerve, and, owing to its size and the suspected involvements, was only interfered with at the pressing appeal of the patient, who insisted in the face of a most unfavorable prognosis.

External manipulation revealed a mobility which upon exposure was found to be confined to the superficial portion, which contained imbedded in its structure the artery and nerve. These were safely dissected out, and this portion removed. The deeper part, which involved the brachial plexus and the subclavian artery, was left undisturbed.

The case, all told, was one which afforded an excellent opportunity for the exercise of judgment and the display of operative technique, both of which were thoroughly brought out by this talented surgeon.

An extensive skin-grafting after the method of Thiersch was performed by Dr. Frank Hartley at a late Roosevelt Hospital clinic. The patient, who had a sarcoma of the breast removed sometime back, was operated upon for its recurrence for the eleventh time. After the removal of the recurrent growth, which had already encroached upon the sternum, a large skin graft was taken from the thigh in a very ingenious manner. Enormous skin grafts, extending over almost the whole length of the thigh, are removed by a single section by this operator.

Cystoscopic work upon this continent is best known through that enthusiastic representative of the German school, Dr. Willey Meyer. Not long since a patient, upon whom a calculus incrustation had been diagnosed two years previously by means of a cystoscope, presented himself at the German hospital for operation. The operation, which was recommended at the time of its diagnosis, was met with refusal, and not until now could his consent be obtained. A supra-pubic incision was made, the incrustation scooped out, and a portion of the lateral

lobes of the prostate removed with a Paquelin cautery.

Brooklyn is so overshadowed by its proximity to New York that many visit this city without ever reaching the former, notwithstanding some very good work is being constantly done in that city.

A very instructive hysterectomy was recently performed at the Methodist Episcopal Hospital by Dr. L. S. Pilcher. The malignant tumor which involved the uterus was one of unusual size, and, together with another concomitant incident, made the case one of uncommon interest. The details of the operation, which was successfully performed, will no doubt be duly reported by this careful and painstaking surgeon.

AUGUST SCHACHNER, M. D.

April, 1891.

### Abstracts and Selections.

**HYPOSULPHITE OF SODIUM AND SILVER IN ATAXIA.**—Dr. A. Ratcliffe, in the *Therapeutic Gazette*, writes: Having a case of locomotor ataxia to treat, and fearing the danger of argyria from the nitrate of silver, I was induced to use the hyposulphate of sodium and silver, thiosulphite of sodium and silver, from a report published by Curci in the *Medical News*, July 10, 1886, wherein it was claimed this double salt "did not coagulate the albuminoids, is very soluble in water, is not caustic, is diffusible, promptly absorbed by mucous membrane and connective tissue. Its taste is sweet, slightly nauseous. Should be given fasting or hypodermically, by mouth from five to twenty centigrams daily, or hypodermically from one to five centigrams daily. Its action is quickly obtained; the danger of argyria is avoided."

My patient was a lady, past middle life, and her trouble had been slow in coming on. The electric-like pains had been treated as neuralgia and rheumatism, the gastric trouble as dyspepsia, with pepsin and nux vomica, while the difficulty in locomotion was attributed to the rheumatism. She came under my care early in 1886. The first symptom she then complained of was the difficulty she had just experienced in coming up the stairs, owing to the darkness and some stiffness in her limbs. Though she could walk from her house to the gate at night with considerable certainty, as she was familiar with the locality, yet if she stepped off the walk she would be compelled to sit down, because on the ground she could

not get her bearings; that if she did not get back on to the walk, she would be compelled to crawl to the house, for on the ground she felt an uncertainty about her equilibrium. She does not walk on her heels, bringing the sole down with a flap; she walks slightly bent forward, that she may watch where she steps, for a very small obstacle, if stepped upon, is sufficient to cause her to fall. Though she stands with her eyes closed, yet there is a slight swaying motion of the body, such a feeling that she might fall, she does not like to try it. She stands and walks wide; the foot is not carried directly forward with a good knee action, but is held rather stiff and swung around.

She took at first ergot, to relieve some spinal congestion that troubled her in the mornings. Belladonna, she thought, gave little relief to the bladder trouble (paralysis of sphincter), and annoyed her by the dryness it caused in the mouth.

She has taken the sodium and silver salt at intervals since 1887, or earlier, as high as fifteen centigrams (2½ grains) a day, in all four or five drams, and has lately commenced on another dram. Soon after commencing the use of the silver salt her gait improved and she walked with more ease and spring. She says the silver helped the pains in her limbs, that she could walk better after taking it, but it did not help her bladder trouble.

Suspension, which she uses at home, she claims greatly helps the bladder trouble; the only thing that ever did.

With the silver salt and suspension, she says, she can get along very well, if her household work is not too great; that without them she could hardly get along at all.

**INTUBATION AT ZURICH.**—At a meeting of the Medico-Chirurgical Society of Zurich, on the 31st ult., Dr. W. von Muralt, consulting surgeon to the Children's Hospital, read an interesting paper on Intubation. A demonstration of O'Dwyre's case of instruments was followed by a short historical account of the development of this system of treatment of acute laryngeal stenosis, and the results obtained in various hospitals on the Continent and in America were mentioned. He said that it was not without some apprehension that in February, 1888, he had introduced intubation at the Children's Hospital in lieu of tracheotomy, but he was glad to be able to report that his fears had not been realized. It had now been tried in a series of 56 cases, and 21 of the patients, or 37½ per cent, had recovered. In 18 of the above cases intubation failed to afford any relief, and was followed by tracheot-

omy; only one of these cases recovered. He had means of a fair comparison of the results obtained by tracheotomy and intubation, both being performed at the same hospital by the same operator and on the same principle. From 1874 to 1888 there had been 318 tracheotomies performed at the Children's Hospital, and 113 patients, or 35½ per cent, recovered. Dr. von Muralt also treated a few cases of chronic laryngeal stenosis with success. In the ensuing discussion, Prof. Kienle said that although in some suitable cases he had had recourse to intubation, he still considered tracheotomy the sovereign method, and did not think it would be superseded by intubation. His operative results were relatively favorable, there being about 40 per cent of recoveries in the last 300 or 400 cases of tracheotomy performed *ex indicatione citi*. He had been rather discouraged by unfavorable results of intubation reported from surgical departments of German hospitals, and mentioned that some of the statistics collected from dozens of different hospitals in different countries were inaccurate, and had not the same value in his eyes as those cases which had been reported by Dr. von Muralt. — *London Lancet*

**EFFECT OF TEMPERATURE ON THE RESPIRATION.**—Dr. R. Oddi, who has been investigating the effect of external heat upon the gaseous exchange in respiration, has shown that the exchange is inversely proportional to the temperature, so that the lower the temperature the greater the elimination. This fact is by no means new, for Lavoisier was aware of it; though the interpretation he gave of it was incorrect, as respiration is not the simple act of combustion that he imagined it to be, but a highly complex series of chemical changes, which have for their object the nutrition of the cellular elements; for, as Luciani has shown, it is necessary that all substances should pass through the living cells of the body tissues in order to undergo change and decomposition. Hence it is impossible to have respiratory exchange without the cellular elements, and nutrition and the production of heat are not identical. Moreover, from Dr. Oddi's experiments it appears that there is no variation in the relative quantities of the different substances taking part in the respiratory changes, and that there is no special nervous mechanism employed, but that the nervous system as a whole takes part in it. The same may be said as regards the production of heat. The experiments we have alluded to were conducted on rats, but Dr. Oddi proposes to supplement them by observations on other animals — *Ibid.*



**THE TETANUS POISON.**—In our interest over the pathological work done by Koch and his German colleagues the labors of the French bacteriologists are a little neglected. It should be remembered that if Koch is to be regarded in anywise as a father of bacteriology, Pasteur is the grandfather, and he and his pupils have done work which is historic in this field. The *Annales de l'Institut Pasteur* is the medium by which this work is put before the world, and its issues rarely fail to contain the results of important observations.

Recently Drs. Vaillard and Vincent have published a paper upon the etiology and bacteriology of tetanus, which deserves attention. They describe again the specific organism of tetanus, and show that it is not this organism but a poison that it secretes which causes the phenomena of the disease. The poison in question only develops after the bacillus has grown for some time and reached the stage of spores; yet it is not the spores themselves that are poisonous. They further show that the poison is not a ptomaine, or any substance which has the characters of an alkaloid or base. The experiments made by Vaillard and Vincent confirm the fact that the tetanus bacillus can not grow in the human body without the presence of another micro-organism; in this respect resembling diphtheria. The disease is therefore, in a sense, one of mixed infection.

Such studies bring us nearer every day to the actual cause of infective disease, and with such knowledge a means of prevention or cure is only a matter of time.—*Medical Record*.

**TO REMOVE THE PIGMENTATIONS OF PREGNANCY.**—In the *Journal de Médecine de Paris*, January 4, 1891, the following ointment is recommended to be rubbed into the affected parts twice daily to remove the pigmentations which so often disfigure pregnant women (*Therapeutic Gazette*):

Cocoa butter	} aa.....	3ijj;
Castor oil....		
Oxide of zinc.....	gr. v;	
Yellow oxide of mercury.....	gr. ij;	
Essence of roses,	enough to perfume.	

**HYSTERICAL FACIAL PARALYSIS.**—A case said to be of this nature was recently communicated to the Société Médicale des Hôpitaux by M. Gilbert Ballet for M. Ed. Boinet, of Montpellier. The patient was thirty-one years of age, and when she came under observation was suffering from right facial paralysis of cerebral type—that is, affecting the lower part of the face—associated with anesthesia, with rhythmical tremor of the right arm. The tremor was recent, having come on after injury,

but the condition of the face dated back as far as seven years. The diagnosis of hysteria is made upon several grounds, the strongest of these being the fact that the tremors disappeared in a few days under suggestion, a sufficient proof apparently for French authorities that it was hysterical. But even if we grant that the tremor was a hysterical manifestation, it by no means follows that the facial paralysis is; and however difficult the explanation of the condition may be, there seems to be little if any justification for the diagnosis of hysteria, a diagnosis as unsatisfactory as it is meaningless. *London Lancet*.

**TUMORS OF THE BRAIN.**—A paper on this subject was read a short time ago before the Boston Society for Medical Observation by Dr. Stedman, and several cases of so-called cerebral tumor were related. The cases are very interesting, and, as each of the five dealt with is completed by a necropsy, they ought to be a valuable series. But unfortunately their value is not so great as might be expected, because while some of the cases are no doubt what would be strictly described as tumors, others are, so far as the evidence in the paper at least can inform us, cases of cerebral softening, the result of embolism or of thrombosis. It is also unfortunate that the ophthalmoscope should not oftener have been called into requisition. We only find it mentioned as having been used in one case, and in that case apparently but once, and with a negative result. Considering how obscure the causation of optic neuritis is, and how important it is to make quite certain of its presence or absence in a given case of suspected cerebral tumor, no apology is needed for insisting upon the importance of such an examination in these cases; and while acknowledging the interest and value of Dr. Stedman's cases, we can only regret that imperfect examination renders them less valuable than they might have been made.—*Ibid*.

**FOOT-BALL CASUALTIES.**—In the \*Alliance match with Bootle, on the 23d ult., at Bootle, three players sustained severe injuries from kicks. Mr. Jabez Ratcliffe, while playing football last week at Hathern, fractured his right hand. On Monday, a youth belonging to Corbridge, while playing a match between the Acomb Archers and the Corbridge Juniors, broke one of his legs below the knee, there being a compound fracture. On Tuesday evening a youth aged seventeen, of Black Heath, was admitted into the West Bromwich District Hospital, suffering from a fractured thigh, which was broken while playing foot-ball.—*Ibid*.

# The American Practitioner and News

"SEC TENU PENNA"

Vol. XL

SATURDAY, MAY 23, 1891.

No. 11

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., }

Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price \$3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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JOHN P. MORTON & CO.

440 to 446 West Main Street, Louisville, Ky.

## KENTUCKY STATE MEDICAL SOCIETY.

The annual reunion of the Kentucky doctors is at hand, and we are glad to be able to present in this issue the programme in all its glory.

That it represents the best talent in this State of talented doctors need not be told him who reads it; the wonder only being (as is the case every year), how the president will be able to get it pleasantly and safely delivered in the time at his disposal. For, aside from the business items which are apt to be voracious of time, there are fifty-five scientific papers, addresses, and reports to be got quit of in the six sessions laid down in the order of exercises. Nine and a sixth essays to each session are, with the necessary discussions, too many sandwiches for a shilling. Either these deliveries must be made with unheard of dispatch, or many a bright conception will be smothered and blighted in the womb of medical thought.

Much may be done to facilitate the execution of the programme (and to prevent the execution of the hearers), if the writers will reduce the text of their papers to plain science, and the president will knock down all windy consumers of time among the speakers.

The American Practitioner and News has made arrangements to publish the proceedings of the Society from full stenographic reports, and by favor of our many friends, whom we thank in advance, the full text of most of the papers to be presented.

The signs prognostic of a meeting unprecedented in numbers are to the practiced eye of Dr. Bailey pathognomonic, and it will be seen that the programme hints at something more succulent than the subject-matter of the papers, however artistically they may be turned. But we have it from inside sources of information that the laity are outvying the local members of the guild in the effort to make the thirty-sixth meeting in a social way traditional among the doings of the most historic city of the State. From which it may be confidently expected by those who may be bulimically and bibulously inclined that the viands will present something softer than hard-tack engraved with a B. C., and that the beverages will not be provided by the management of the W. T. U.

The Thirty-sixth Annual Meeting of the Kentucky State Medical Society will be held in the Opera House, Lexington, Ky., Wednesday, May 27, 1891, beginning at 2 o'clock, P. M.

The Annual Address of the President, Dr. George Beeler, of Clinton, will be delivered at 8 P. M. on Wednesday, May 27, 1891, to be followed with an address on The Public and the Profession; their Reciprocal Relations, Duties, and Responsibilities, by Dr. Lyman Beecher Todd, of Lexington.

**Officers:** President, George W. Beeler, M. D., Clinton; Senior Vice-President, James M. Poyntz, M. D., Richmond; Junior Vice-President, Ap Morgan Vance, M. D., Louisville; Permanent Secretary, Steele Bailey, M. D., Stanford; Assistant Secretary, John Y. Oldham, M. D., Lexington; Treasurer, James B. Kinnaird, M. D., Lancaster.

**Board of Censors:** H. Brown, M. D., Chairman, Hustonville; Chas. Mann, M. D., Secretary, Nicholasville; Dudley S. Reynolds, M. D., Louisville; W. M. Hanna, M. D., Henderson; J. P. Thomas, M. D., Pembroke; R. C. McChord, M. D., Lebanon.

Chairman of Committee of Arrangements, David Barrow, M. D., Lexington.



## PROGRAMME.

## FIRST DAY (WEDNESDAY), 2 P. M.

Call to Order by the President.  
 Reading of the Minutes of 1890.  
 Report of the Committee of Arrangements.  
 Report of the Committee on Credentials.  
 Report of Treasurer.  
 Report of the Permanent Secretary.  
 Miscellaneous Business.  
 Report on Progress in Practical Medicine, by B. L. Coleman, M. D., Lexington.  
 Report on the Progress of Surgery, by Ap Morgan Vance, M. D., Louisville.  
 Report on Progress in Obstetrics, by Turner Anderson, M. D., Louisville.  
 Report on Improvements in Pharmacy, by Andrew Seargent, M. D., Hopkinsville.  
 Report on Vital Statistics, by T. B. Greenley, M. D., West Point.  
 Report on Ophthalmology, by J. Morrison Ray, M. D., Louisville.  
 Report on Abdominal Surgery, by L. S. McMurry, M. D., Louisville.  
 Report on Diseases of the Rectum, by J. M. Mathews, M. D., Louisville.  
 Report on Brain Surgery, by W. L. Rodman, M. D., Louisville.  
 Jequirity in the Treatment of Granular Lids, by J. G. Carpenter, M. D., Stanford.

## EVENING SESSION, 8 P. M.

Address by the President, George Beeler, M. D., Clinton.  
 The Public and the Medical Profession; their Reciprocal Relations, Duties, and Responsibilities, by Lyman Beecher Todd, M. D., Lexington.

## SECOND DAY (THURSDAY), MORNING SESSION, 9 A. M.

Miscellaneous Business limited to one hour.  
 The Diagnostic Value of the Diphtheritic Bacillus, by Simon Flexner, M. D., Louisville.  
 Modern Methods in the Treatment of Tuberculosis, by J. B. Marvin, M. D., Louisville.  
 The Amblyopia of Squint, by Dudley S. Reynolds, M. D., Louisville.  
 The Use and Abuse of the Surgeon's Probe, by Archibald Dixon, M. D., Henderson.  
 Rachitis in Relation to Growth and Development, by J. A. Larrabee, M. D., Louisville.  
 The Treatment of Some of the Inflammations of the Superficial Tissues of the Eye, by Wm. Cheatham, M. D., Louisville.  
 Hemipia, with Report of Cases, by M. F. Coomes, M. D., Louisville.  
 Abortion and its Treatment, by T. O. Meredith, M. D., Burgin.

The Treatment of Acute Dysentery, by Robert C. Kenner, M. D., Louisville.  
 The Arsenite of Copper in Intestinal Disorders, by S. C. Smith, M. D., Henderson.  
 Some Remarks on Abdominal and Pelvic Surgery, by W. H. Wathen, M. D., Louisville.

## AFTERNOON SESSION, 2 P. M.

The Present Status of Intubation, by J. H. Letcher, M. D., Henderson.  
 Cancer of the Penis, by W. O. Roberts, M. D., Louisville.  
 Ocular Vertigo, by S. G. Dabney, M. D., Louisville.  
 Resorcin as an Antipyretic, by W. C. Chapman, M. D., Louisville.  
 Cystitis Complicating Gonorrhea, by J. G. Allen, M. D., Louisville.  
 Two Cases of Intestinal Obstruction, by David Barrow, M. D., Lexington.  
 Scarlatinal Throat Affections, by Thomas Hunt Stucky, M. D., Louisville.  
 Providing for the Insane in Kentucky, by H. K. Pusey, M. D., Louisville.  
 Report on Surgery of Bones, by R. C. McChord, M. D., Lebanon.  
 Pistol Ball Loose in Synovial Sac of the Knee-Joint, by R. C. McChord, M. D., Lebanon.  
 Chronic Catarrh of Middle Ear, by W. B. McClure, M. D., Lexington.  
 Otitis Media, by Allen H. Kelch, M. D., Louisville.

## EVENING SESSION, 8 P. M.

The General Surgeon and the Abdominal Surgeon, by A. M. Cartledge, M. D., Louisville.  
 The Causes of Cerebral Hemorrhage, by F. H. Clark, M. D., Lexington.  
 Report of Thirteen Cases of Laparotomy, by L. C. Royster, M. D., Smith's Mills.  
 Three Years of Therapeutic Progress in Dermatology, by I. N. Bloom, M. D., Louisville.

## THIRD DAY (FRIDAY), MORNING SESSION, 9 A. M.

Miscellaneous Business limited to one hour.  
 Report on State Medicine, by J. N. McCormack, M. D., Bowling Green.  
 Report on Hygiene, by J. Pinckney Thompson, M. D., Henderson.  
 The Indiscriminate Use of the Nasal Spray, by T. C. Evans, M. D., Louisville.  
 A Fatal Hemorrhage following Scarification of the Conjunctiva, by Isaac A. Shirley, M. D., Winchester.  
 The Relation of the Physician and Surgeon in Country and Village Districts, by George E. Davis, M. D., Salvisa.  
 Lessons Learned from a Post-Mortem, by J. G. Carpenter, M. D., Stanford.

Report of a Case of Gunshot Wound of the Liver, by W. V. Cook, M. D., Orytha.

A Case of Compound Comminuted Fracture of the Tibia, with Dislocation of the Fibula Upward, by Steele Bailey, M. D., Stanford.

Post-Partum Hemorrhage, by F. M. Greene, M. D., Fayette County.

Summer Complaint of Children, by Lyman Beecher Todd, M. D., Lexington.

Scrofulated Bladder and Malignant Intestinal Polyps, with specimen, by M. T. Scott, M. D., Lexington.

Report on Diseases of Children, by J. P. Thomas, M. D., Hopkinsville.

Fallacy of the Mad Stone, by J. B. Kinnaird, M. D., Lancaster.

Pseudo-Membranous Croup treated by Mercurial Fumigation, by A. J. Lieber, M. D., Henderson.

Two Cases of Brain Surgery, by Fayette Dunlap, M. D., Danville.

Report on Appendicitis, by Fayette Dunlap, M. D., Danville.

At 10 o'clock p. m. there will be a reception to the visiting ladies, at the Phoenix Hotel. On Thursday evening the "banquet" at the Phoenix. The local committee are laboring to make the thirty-sixth meeting the most eventful ever held in the State. The programme speaks for itself.

A one-third reduction in railroad fare will be given on all roads in the State going to and from Lexington. When buying tickets to Lexington the delegate will pay full fare, and must obtain from the ticket agent a certificate of purchase, which, after being countersigned by the Secretary of the Society at the meeting, will enable him to purchase a return ticket at one third of the full fare.

STEELE BAILEY,

*President Secretary*

**AN EARLY SYMPTOM OF LOCOMOTOR ATAXIA.**—The Southern Medical Record, quoting from German journals, states that Dr. Heinrich Weiss describes ataxia in a book-keeper, whose first symptom was uncertainty in stepping backward. The importance of this initial symptom was pointed out by Althaus, in 1884, in reporting the case of a painter, who had noticed it in himself as he stepped backward from the easel to view the progress of his work.

## SPECIAL NOTICES.

Chemical Union is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent in the past few years. Robinson-Pettet Company, to whose advertisement on page — we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

E. L. Fish, M. D., West Valley, N. Y., says: "I can heartily endorse Alettris Cordial after giving it a fair trial. Mrs. F., aged twenty-seven, mother of two children, during last seven years has miscarried three times. Has lateral curvature of spine, and severe rheumat. Began in last position, in two months, to give Alettris Cordial, three-fourths teaspoonful three times a day, and increased to one teaspoonful. She has used four and one-half bottles, and is now within four or five days of full term. Her general health has been much improved, appetite good, no vomiting, bowels in good condition, and kidneys acting well. I am exceedingly well pleased with the action of the remedy, as a laxative patient. I have also used Alettris Cordial in ovarian neuralgia with tipping results. I have used it in one case of miscarriage at three months in which the miscarriage almost amounted to flooding, continuing the patient to bed for six or eight days at a time. In this case I prescribed:

R Alettris cordial..... 8 ounces;

Erg. 1, 2, ext..... 2 ounces.

M. Sig: Teaspoonful three or four times a day.

This acted promptly, and the next period was passed in comparative comfort.

ALEX. M. BROWN, M.D.C.S. (Eng.), Liverpool, England, says: "S. H. Kennedy's Extract of Pilocarpus is an extremely powerful remedy for the diseases of the mucous surfaces, especially of the throat, and indeed of the whole intestinal mucous membrane. In throat affections, relaxed uvula, chronic laryngitis, assuming the form of splandyn, catarrhus, all which, coughs, croup, and splandyn are subject, I have found its administration, both internally and as a gargle most useful. I have considerable experience of its efficacy in croupy men, and find it invaluable in distress of larynx."

LUMBAGO. A Valuable Internal Remedy.

R. Extract of Pilocarpus..... 100 grains.

Opium [Rho]..... 17 grains.

M. Sig: Teaspoonful every four hours.

DR. THOMAS LITTLE, of Spirit Lake, Iowa, in comparing Papine with other forms of Opium says: "I have been using Papine for the past two months. It meets the requirements of a class in which opiates are indicated, but in which the remedy is worse than the disease. One case in particular has given me a great deal of trouble for years. I have tried opium in every form, and many other narcotics, alone and in combination, but constipation, nausea, and nervous prostration have been the invariable results. Some two months since I obtained some Papine and commenced on this case with the happiest effect, no nausea, no constipation, no prostration. I have been prescribing it in my practice since with the greatest satisfaction to myself and my patients."



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.  
[NEW SERIES.]

LOUISVILLE, KY., JUNE 6, 1891.

No. 12.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### REPORT ON ABDOMINAL SURGERY.\*

BY L. S. M'MURTRY, M. D.

It would be futile to attempt within the limits of this report to discuss the recent extensions and improvements in pelvic and abdominal surgery. "The restless spirit of surgery" has included within its scope every organ within the abdomen and pelvis, with results which a few years since would have been considered incredible. The literature of this department of surgery is vast and constantly increasing. The journals are flooded with reports of cases and operations showing much crude work and recording results that are often misleading. This seems to be unavoidable in a new and rapidly developing branch of medicine or surgery. The most important improvements recently made are in greater accuracy of diagnosis, more careful selection of cases for operation, more prompt resort to operative treatment in appropriate cases, and more simplicity and expedition in the operative technique.

In this branch of surgical practice the issue is not the loss of a limb or the function of an important organ, but that of life or death. Hence individual experience and manipulative skill, with a carefully wrought operative technique, on the part of the operator, have established in this a specialty as distinct as that of any other particular department of surgery;

a specialty, however, to which, from very necessity, the general surgeon, the obstetrician, and general practitioner must bear very constant and intimate relations. The emergency of gunshot and other penetrating wounds, of intestinal obstruction, and appendicitis must demand the attention of the general surgeon, while the less acute, more complicated, and more obscure diseases of the pelvic organs in women are more successfully diagnosed and treated by practitioners with special training and experience in gynecic surgery.

The peritoneum, so rich in absorbents and so readily infected, necessitates a technique detailed and exacting. The operations upon the pelvic organs are guided solely by the touch. The aid of chemicals can not be utilized to maintain asepsis here as in other regions of the body. Prolonged anesthesia and prolonged exposure of the serous surface are such potent factors of shock that quick decision and rapidity of execution are essential to good results. Hence an apprenticeship as assistant, or as an observer of the work of others in all its details, with practical work in the preparation of instruments, sponges, ligatures, and all details of operation, and after-treatment become a necessity, and separate this as a special branch of surgical practice. Moreover, in pelvic surgery the extent of adhesions and the complications to be encountered can never be estimated in advance, so that simple cases can not be recognized before the life of the patient hangs in the balance. This increases the responsibility of the operator and the necessity for resources only to be acquired by an apprenticeship at the operating-table. These facts are now very generally recognized by the profession, and pelvic surgery has advanced in consequence.

The most important advance in the branch of surgery under consideration, which lies at

\*Read before the Kentucky State Medical Society at Lexington, May 27, 1891.

the basis of all our pathology and treatment, relates to the modern conception of peritonitis. Formerly this was regarded a distinct disease, a pathological entity, and so treated with a stereotyped scheme, beginning and ending with opium and poultices. Now we know that, except when traumatic, peritonitis is septic. This is the fundamental principle underlying the modern surgery of the peritoneum. The demonstration of this pathological fact has made it possible, by maintaining asepsis, to deal with the organs enveloped by peritoneum as elsewhere in the body, and has taken away the former dread of that "sacred sac." The peritonitis termed idiopathic is a myth. Such a condition can not obtain. What was formerly known as idiopathic peritonitis in men is in many cases found to be appendicitis, or other infective process, and localized symptoms lead to an accurate appreciation of the pathological condition.

In women, the peritoneum, on account of the anatomy and physiology of the pelvic organs, is constantly exposed to infection. Functions performed physiologically expose it to infection. When it was discovered that gonorrhea and other infections could traverse the fallopian tubes and infect the peritoneum, an accurate idea was obtained as to the nature and treatment of intra-pelvic inflammation, a condition hitherto totally misunderstood. The milder degrees of infection following labor and miscarriage, heretofore treated as traumatism and the result of the puerperal blood-state, are now known to be due to infection, and are daily presented to the gynecologist in all the varieties and complications of tubo-ovarian diseases and pelvic peritonitis. Only a few years have elapsed since puerperal fever was regarded and treated as a substantive disease, dependent on a specific unknown cause. Now it is known to be only a septic peritonitis, altogether preventable by the application of rigid aseptic and antiseptic methods.

Another and very prolific source of infection of the peritoneum in women has not received sufficient attention. I allude to intra-uterine applications, minor operations upon the cervix uteri, and the use of the curette, sound, and intra uterine stem. I would not be understood

as advocating that intra-uterine applications, the curette, and uterine dilator be entirely discarded, but I maintain that the use of these methods and instruments is limited to a narrow sphere, and their use upon an incorrect diagnosis is very common and dangerous.

Many cases of tubal inflammation and pelvic peritonitis have their origin in forcible dilatation of the cervix or in operations for cervical laceration. In many instances a subacute or chronic pelvic inflammation is rekindled into active and even fatal peritonitis by operations upon the cervix.

In every instance the appendages should be carefully palpated and inflammatory disease excluded before resorting to these operations. I have seen cases of purulent salpingitis directly traceable to operations on the cervix. The too forcible use of the sound may penetrate the uterus, with or without intense pain, and be followed by peritonitis. Such result is apt to follow forcible attempts to replace a displaced and fixed uterus. The custom of passing the sound at every examination is a mischievous one, as this instrument transmits infection from one patient to another if not cleansed and sterilized after being used. I know of one instance in which the curette was pushed through into the peritoneum, producing violent peritonitis and necessitating abdominal section, irrigation, and drainage to save the patient. When these instruments are not properly prepared, and when precautions to prevent asepsis are disregarded, the endometrium and tubes may be easily infected, begetting chronic tubal inflammation and peritonitis. For fungoid disease of the endometrium, and certain conditions subsequent to labor and abortion, curettement is a valuable method of treatment; but it should be used with precautions against septic infection. When the uterine cervix is torn, everted, and eroded, the operation devised by Emmet is one of the most useful in surgery; but before it is resorted to we should be sure the appendages are not the seat of subacute inflammation, and observe the rules of thorough surgical cleanliness.

Intra-uterine applications are of positive value in some conditions, and may be often applied with advantage as supplementary to other



treatment. Yet I know no minor gynecological procedure so productive of harm when excessively and improperly used, and none so frequently resorted to upon a mistaken diagnosis. Strong acids and other caustics frequently applied to the endometrium can destroy tissue, produce sloughing and suppuration, and through the fallopian tubes spread an inflammation to the pelvic peritoneum.

Unirritating antiseptic and astringent substances will, in the majority of affections of the uterine mucous membrane, accomplish all and more than these caustic agents, without the dangers of the latter. Uncomplicated endocervicitis and endometritis are very rare diseases, and in a large proportion of the cases so diagnosed and treated the real seat of disease will be found in the uterine appendages. This is intensified by caustic applications to the cervical and uterine mucous membrane, and may excite uncontrollable general peritonitis.

Another cause of peritonitis in women, too common to be disregarded, is that of self-inflicted abortion by means of instruments. I often doubt if the profession fully appreciates how often this is done, and among the better class of people. I am now treating a lady who was confined to her bed for weeks with a violent pelvic peritonitis from this cause, which has left her with the pelvic organs displaced and firmly fixed with organized exudate. The instrument was made of hard rubber and steel, manufactured for the purpose and forwarded to her by mail, and it is difficult to conceive of a more dangerous device. Failure to cleanse the uterus of the fetal structures and ignorant disregard of aseptic rules render infection of the peritoneum an easy process after such a procedure.

I have endeavored to show in this paper that peritonitis is not of itself a disease, but a dangerous complication, originating in an infection which may be conveyed through diverse channels from various sources. As we become familiar with its origin and causes we are capable of doing much by way of prevention. When we are confronted with its treatment, we have to search for the source of infection and deal with it surgically.

LOUISVILLE.

## THE USE AND ABUSE OF THE SURGEON'S PROBE.\*

BY ARCH. DIXON, M. D.

Mr. President and Gentlemen of the Kentucky State Medical Society, I have ventured in a short paper to call your attention to the use and abuse of the probe, one of the oldest instruments known to surgery. But it is more especially in regard to its abuse that I shall speak. There can be no question but that the probe is one of the most useful and most valuable instruments in our entire armamentarium, but it is also one of the most dangerous. Employed almost daily and hourly by surgeons in extensive practice, it serves a good purpose in the exploration of fistulous tracks and sinuses, in detecting the presence of foreign bodies, dead bone, etc. It is also undoubtedly useful at times in determining the course and location of pistol balls. But it is to the indiscriminate, often times uncalled for and I might almost say criminal use of the probe in this connection that I wish to call your attention. There seems to be a prevailing idea among the laity, and particularly is the idea engrafted in the minds of newspaper reporters, that in gunshot wounds of any character the first duty of the surgeon is to probe for the ball. I am sorry to say that this idea is also deeply rooted in the minds of many of the medical profession. Scarcely a daily paper is picked up in which does not occur the publication of one or more cases of gunshot wounds in which the statement is made that the doctor has probed for the ball, or that he is going to probe for the ball. Most of you remember the celebrated case of President Garfield. How he was shot on the morning of July 2, 1881, at the Pennsylvania depot, how Dr. Bliss, without waiting for consultation, immediately upon his arrival proceeded to probe the wound with a view, as he expressed it, of ascertaining the course of the ball and the organs involved. It does not seem that Dr. Bliss observed any antiseptic precautions in the case, but without surgical consultation he takes from his pocket case a Nelaton probe, which probably had not been sterilized, and passes it into the wound, "which was on the

\*Read at May meeting of Kentucky State Medical Society, 1891.

right side, four inches from the median line of the spine and on a line with the eleventh rib, into what seemed to be a cavity." That he did not ascertain the course of the ball and the organs involved is a matter of medical history; and it is further a matter of history that the ball was encysted and therefore harmless, that pus sinuses formed and that President Garfield died of pyemia, in all probability due to the introduction of septic matter on Dr. Bliss' probe. Which of you can say that, had the wound in President Garfield's side been hermetically sealed with an antiseptic dressing without further interference, he might not today be a living man. I shall not occupy the time of the Society by going into the details of this remarkable case, nor indeed into those of any other case, but shall content myself by mentioning a few instances which have fallen under my personal observation bearing upon this most important subject.

Ben A., a negro man about twenty-five years of age, was shot by a police officer in attempting to escape arrest. The ball penetrated the left side, about two inches below and to the left of the scapula. The negro succeeded in making his escape, and was concealed for two days in a cabin on the river bank. He was here visited by a physician who examined the wound, which was completely sealed by a dry blood clot. His condition was fairly good, temperature almost normal, and appetite unimpaired. The blood clot was removed, and a probe, taken from the pocket-case of the doctor, which had probably a short time previously been inserted into a suppurating bubo, withdrawn and wiped off, was passed through the chest walls into the pleural cavity to discover the course and location of the ball. Result, metastatic septicemia and death.

A man engaged in trying to quell an election row was shot in the abdomen an inch and a half below and to the left of the umbilicus. The ball did not enter the abdominal cavity, but the probe of the doctor did. Result, fulminant peritonitis and death. The ball had passed through and underneath the abdominal muscles and was removed from the back after death.

A man, either accidentally or with suicidal

intent, shot himself in the forehead about an inch above the orbital process on the right side. Two physicians were called in to see him, and proceeded at once to probe the wound to ascertain the course and location of the ball (a No. 32). The patient, who was conscious before the probing was done, immediately became comatose and promptly died. The physicians gravely announced that the probing had revealed the fact that the ball had lodged in the base of the brain.

The above and the following case were given me by Dr. S. C. Smith.

A young man was leaning on a shotgun with the muzzle in the axilla when it was accidentally discharged. The load of squirrel shot passed, as a slug would have done, upward and backward, making its exit through the scapula, cutting in its course the long thoracic and other nutrient or circumflex branches of the subclavian and axillary arteries. Natural hemostasis had taken place, while the young man walked with assistance to a house half a mile away. Dr. Smith was summoned, but, being out of the way, another physician was taken to the case. Notwithstanding the fact that no hemorrhage was going on, and it was plain the charge had passed straight through, he passed a probe entirely through the wound and then broke up the clots with his finger, setting up a dangerous and almost uncontrollable hemorrhage. Septic trouble, as Dr. Smith expressed it, of course followed the busy probe and finger, but was fortunately controlled, and recovery ensued.

A young man became engaged in a quarrel at a dance and was shot in three places, through the right arm, into the chest, and through the left thigh. I was telephoned to go and see him. On my arrival I found a young physician already on the ground and busily engaged in passing a probe into the wound in the thigh, which was slightly to the right of the lower angle of Scarpa's triangle. He informed me that the ball had penetrated the abdominal cavity, having passed upward and underneath Poupart's ligament. An examination revealed the fact that the ball had gone entirely through the thigh, making its exit at a point almost exactly opposite to the point of entrance. The



second ball had passed through the biceps muscle of the right arm and had penetrated the chest about an inch in front of the axillary line. These wounds escaped the probe owing to my timely arrival. I will do the young man the justice to say that he had sterilized his probe before using it. The chest wound was dressed antiseptically and the patient made a good recovery.\* Many other such cases could be cited, and doubtless most of you could add to the list, but the only object of this paper is to protest against the indiscriminate and ridiculous habit of thrusting a probe into every gunshot wound which comes under observation. This especially applies to gunshot wounds of the chest, which in almost every instance should be cleansed with an antiseptic solution, dressed and sealed with an antiseptic dressing, and severely let alone.

HENDERSON, KY.

### A CASE OF FOREIGN BODY IN THE TRACHEA.

BY JAMES W. GUEST, M. D.

*Formerly House-Surgeon at the Harlem Hospital, New York.*

Foreign bodies in the trachea are fraught with so much danger, and the mode of entrance to the respiratory tract is so easy, it will not be uninteresting to record cases however frequent they may be in medical literature.

An interesting case of foreign body in the trachea occurred in my service at the Harlem Hospital, New York City, with some unusual features which will be of interest, since we are liable to meet all varieties of this accident. It is reported with a view to emphasize the fact that cases of this accident may occur in which surgical interference is practically of no avail.

The following is the history of the case: F. M., age two years, a bottle-fed infant. Not an average healthy child. Admitted to the hospital September 1, 1890, at 12:30 P. M. Diagnosis: Foreign body in the trachea.

Symptoms on admission: The patient while being fed with "joint soup" by his nurse was noticed to be breathing with extreme difficulty, and seemed to be choking. Frightened by his gasping respiration, the nurse immediately ran with him to the nearest physician's office with-

out notifying the parents of the child of what had happened. The physician advised the nurse to hasten to the hospital, two blocks away, for surgical treatment. The patient was taken to the operating-room, and I made an examination as to the location of the foreign body, but this could not be done with any accuracy. Repeated attempts with instrumental aid failed to remove the obstruction or in any way to localize its presence.

The combined agencies of succussion, force of gravity, slapping of the back, and other methods to produce expulsion were made, but they were all inefficient. The child was becoming weak from the exhaustive efforts to breathe, and symptoms of asphyxia denoting impending suffocation were apparent. I decided upon immediate tracheotomy as the only hope of relief. This course was approved by the visiting surgeon, whom I consulted by telephone. A few whiffs of chloroform were given, and I at once made a small incision just below the cricoid cartilage. The muscular tissue was speedily and cautiously separated and the trachea exposed to view. There was but very little hemorrhage, possibly not over ten drops of blood. A tenaculum was used to bring the trachea more prominently into view and to relieve as far as possible the violent up-and-down movements of the windpipe. Four rings of the trachea were divided and the smallest size silver tracheal tube inserted. To the surprise of all present the child did not breathe any better or the cyanosis clear up in the least. It was evident by this that the foreign body was further down in the trachea. The opening was just above the sternal notch, consequently could not be extended as a means to explore below. The tracheal tube was removed and forceps introduced through the opening in the hope of reaching, dislodging, and removing the obstruction, but with no effect. The child became completely comatose and died in a few hours after admission to the hospital.

The autopsy demonstrated that no surgical treatment could have saved this child. The thoracic cavity was opened and the bronchi removed entire. The obstruction was found to be a "gristle" about the size of a pigeon's egg and one inch in length. It was firmly impacted

at the bifurcation of the trachea. One extremity wholly occluded the right bronchus, and the other about one half the lumen of the left. The right lung was very small and completely collapsed (non-crepitant), extremely dark red in color, and sank when placed in water. The left lung was very large and emphysematous, healthy in color, and was ruptured in two places on the surface of the upper lobe.

Examination of the heart showed the left ventricle filled with blood, death having occurred in diastole.

This case is interesting from the fact that the foreign body wholly occluded the right bronchus and partially the left. This is unusual, as foreign bodies are, as a rule, imprisoned in but one, which of course makes it less dangerous to life.

According to Bourdillat's statistics of 156 cases of impaction of foreign bodies in the respiratory tract, 80 lodged in the trachea, 35 in the larynx, 26 in the right bronchus, and 15 in the left, and in not a single case were both bronchi occluded at the same time.

In the statistics of Gross, Durham, and Wiest, collectively, of foreign bodies in the trachea, the following is given: 283 deaths among 955 patients not operated on, or 29.78 per cent; 178 deaths among 719 patients operated on, or 24.75 per cent. The entire proportion being one death in 3.5 of unoperated cases, and one death in 4 of the operated cases.

LOUISVILLE.

## SULPHUR PREPARATIONS IN SKIN DISEASES.

BY DR. CHARLES SZADEN.

Sulphur is a remedy of great practical utility in the external and internal treatment of many skin diseases, and although it has been known to the medical profession for nearly two centuries, it has not been very largely employed by modern physicians. My attention was attracted to this drug sometime ago by my having read a paper of Dr. Unna on ichthyol and resorcin in the treatment of skin diseases (1886).

I have for the same time employed the sulphur preparations in the form of ointment or

powder in my private practice as a remedy for various skin diseases, and in many cases I have obtained very favorable and surprising results. The first case was one of long-standing rosacea in a married lady, thirty-two years old, having a family history which was negative as regards tuberculosis, syphilis, and scrofula, who presented herself with a lesion on the face, which she said was first noticed about three years ago, as small pimples near the middle of the nose. It had spread symmetrically also over the cheeks down to the mouth, involving the skin to the root of the nose. The patient has been treated by some noted specialists in this section, and had not been benefited to any extent, the skin affection involving the nose and the cheeks partly. These surfaces were all dark copper red, with multiple nodules and pustules; the vessels were strongly injected. I prescribed an ointment composed of precipitated sulphur, one part to eight parts of vaseline. After a fortnight's external use of the sulphur, the color of the affected skin region became much clearer, and the eruption began to show the effect of the sulphur treatment. There has not been the slightest irritation produced by the drug. In three months the disease of the skin disappeared and the patient was cured. In the same way and with equal success I have treated another case of erythematous rosacea, and some cases of so-called seborrheic eczema (Unna). I have also found excellent results to follow the use of sulphur preparations in hyperidrosis, whether of the feet, hands, axillæ or other regions.

In cases of seborrhea of the scalp an ointment of one part of sulphur to eight to ten parts of oil was the simplest and at the same time one of the most efficacious remedies. I have prescribed the sulphur ointment in some cases of chronic eczema in children, and in prurigo, ichthyosis, etc., where I have been in the habit of treating by usual methods, and sometimes the results have been more gratifying and satisfactory from the use of sulphur than from the other remedies. In the same affections I have used the preparations of ichthyol as a substitute for sulphur, according to the prescriptions of Unna, externally and internally, and I have also obtained very fav-



orable results. I have not observed any injurious or disagreeable action of the remedy; on the contrary, the internal use of ichthyol, five to ten drops, two or three times a day, was followed by increased appetite and power of digestion.

I have employed the sulphur preparations as in the following preparations:

1. Sublimed sulphur..... $\frac{1}{2}$  dram;  
Powdered arrow-root..... $\frac{1}{2}$  ounce;  
Salicylic acid.....8 grains. Mix.
2. Sublimed sulphur..... $\frac{1}{2}$  dram;  
Almond oil.. } aa.....3 ounces. Mix.  
Glycerine .. }
3. Sublimed sulphur.....2 drams;  
Etheris sulphuris.. } aa.....2 ounces.  
Spts. vini rectif..... }
- M. Sig: Shake well and mop over the surface.
4. Sublimed sulphur.....2 scruples;  
Vaseline or ointment of benzo-  
ated oxide of zinc.....1 ounce. Mix.
5. Ichthyol (sulpho-ichthyolate )  
of sodium or ammonium).. } aa...1 ounce.  
Spts. vini rectif..... }
- M.D.S. Five to ten drops two or three times a day.
6. Ichthyol.....2 scruples;  
Powdered oxide of zinc } aa...2 drams;  
Powdered arrow-root.. }  
Vaseline..... $\frac{1}{2}$  ounce.  
Mix. F. pasta.
7. Ichthyol..... $\frac{1}{2}$  to 1 dram;  
Vaseline or ointment of benzo-  
ated oxide of zinc..... $\frac{1}{2}$  ounce. Mix.

KIEFF, RUSSIA.

## Societies.

### AMERICAN MEDICAL ASSOCIATION.

The Forty-second Annual Meeting, held at Washington, D. C., May 5-8, 1891.

[CONTINUED FROM PAGE 357.]

### SECTION FOR PRACTICE OF MEDICINE AND PHYSIOLOGY.—THIRD DAY.

Dr. J. S. Nowlin, of Shelbyville, Tenn., read a paper on Epidemic Cerebro-spinal Meningitis. The disease is in reality not an inflammation, but is due to malarial poisoning, acting primarily on the nervous system. This idea is not new, and is borne out by the nervous symptoms, and by the great benefit to be derived from quinine. This drug should be administered freely, by subcutaneous injection, and should be given also as a prophylactic.

Dr. Dock did not believe that the disease was malarial; it may occur anywhere, but malaria may closely simulate cerebro-spinal meningitis. A differential diagnosis is of great importance with a view to treatment, and may be made by microscopic examination of the blood.

Dr. W. B. Davis, of Cincinnati, read a paper on the Prevalence of Albuminuria in Persons Apparently Healthy.

It was formerly considered that albuminuria was pathognomonic of nephritis, but such is not the case. It may occur periodically, or even in a few cases continually, in persons in perfect health. This was agreed to by others present.

Dr. J. H. Jenkins, of Tecumseh, Mich., sent a paper on Euphorbia Pilulifera in Spasmodic Asthma.

He had used the fluid extract with very good results.

### RESULTS WITH TUBERCULIN.

Dr. Karl von Ruck, of Asheville, N. C., gave the results with twenty-one cases. If properly given there need be no unpleasant results. The heart became more irritable during the course of the treatment.

Dr. S. P. Kramer, of Cincinnati, thought that tuberculin when properly understood would be found to be the best treatment for certain cases of tuberculosis.

Dr. Osler said that the results with tuberculin at the Johns Hopkins Hospital had not been encouraging. In five out of twenty-four cases, where the extent of the lesion was slight, there was some improvement. In other cases the disease appeared to spread under its influence.

Dr. Eccles thought that Koch would yet discover a cure for tuberculosis.

Dr. Welch described the microscopic appearances of the diseased tissue during the injections. He thought it possible that there might be a tendency in tubercular foci to become incapsulated as a result of the treatment.

Dr. Vaughan had injected a substance obtained by filtering colonies of a bacterium entirely different from the tubercle bacillus, and had obtained a reaction and apparent improvement.

Dr. Charles H. Shepard, of Brooklyn, read a paper on *The Action of the Turkish Bath in Disease*.

The value of sweating is often underestimated, and much relief may often be obtained, especially in some diseases, such as phthisis, nephritis, different skin diseases, etc.

Dr. George Dock, of Galveston, Texas, read an abstract of a paper on the *Malarial Parasites, and the Forms of Disease in Which They Occur in Texas*.

Out of seventy-six cases of suspected malaria he had found the plasmodium in the blood in forty-one. The others included several diseases the symptoms of which might in a malarial country be mistaken for malaria. As large doses of quinine would be contra-indicated in some of these cases, a differential diagnosis is important, and may be made by an examination of the blood.

Dr. Osler said that typhoid fever was often very difficult to distinguish from malaria. The examination of the blood was a valuable diagnostic means, and he noticed that in Germany the discovery of Laveran was at last receiving the attention due it.

Dr. W. J. Herdman, of Ann Arbor, read a paper on *Electricity Therapeutically Considered*.

The advantages to be derived from electricity are numerous. It is not necessary for the physician to make his own electricity; if he can be connected with an electric light system he may safely use the supply.

The committee appointed last year to investigate the fevers of the South was continued until next year.

#### SECTION OF OBSTETRICS AND THE DISEASES OF WOMEN.

A very large number of papers were offered in this Section. This was alluded to in the opening address by the chairman, Dr. Charles A. L. Reed, of Cincinnati, who favored a division into two sections, Obstetrics and Gynecology.

Dr. H. D. Fry, of Washington, read a paper on the *Prevention of Puerperal Convulsions by the Induction of Premature Delivery*.

Considering the large percentage of prema-

ture children who live, if properly attended to, and the dangers to both mother and child in cases where toxic symptoms from uremia exist, there should generally be no hesitation in inducing labor. The presence of albumen in the urine is not alone sufficient evidence of danger to warrant interference. The best method is the insertion of an antiseptic bougie between the uterus and membranes.

Dr. Llewellyn Eliot, of Washington, read a paper on *Spasmodic Stricture of the Urethra Following Labor*.

This is a rare complication and may differ in its course, and may be painful or painless. It may arise from injuries or from nervous disturbance or rheumatism. He reported two cases, both occurring on the seventh day. Treatment must be directed to the cause of the trouble, but also local astringents and caustics are of use.

Dr. J. S. Stone, of Washington, read a paper on *Can the Gynecologist Aid the Alienist in Institutions for the Insane?*

There are many cases in hospitals for the insane where the rational treatment of the nervous disturbance should be directed to the organs of generation. By the failure on the part of some alienists to recognize the connection between the two many women are unnecessarily deprived of their liberty. Some provision should be made by which this unfortunate state of things could be rectified. The author cited cases in which insanity had been cured by operations on the genital organs. Similar cases were reported by others, and suggestions offered looking toward inspection of cases at asylums.

Dr. A. J. C. Skene, of Brooklyn, in a paper on the *Pathology and Treatment of Chronic Ovaritis*, while admitting that the organs were not necessary to existence, and that they could be removed with comparative safety, deprecated the practice of taking wholesale advantage of this fact; moreover, many of the cases were not benefited by the radical interference. Changes of some kind always supervened, and but few patients were left entirely well after such surgical measures. He would only advocate removal of the organs where there co-existed structural changes and prolapse. He then enumerated the therapeutical agents and



measures which should have thorough trial, and believes that such conservatism would often disappoint the gynecological operator.

#### UNSUSPECTED ECTOPIC GESTATION.

Dr. H. F. Formad, of Philadelphia, gave the results of a series of observations which, by virtue of his position as coroner, he had been able to make in a large number of *post-mortem* examinations on women, with a view to ascertaining the cause of death in cases where *ante-mortem* diagnosis had not been made. Since commencing careful investigation he had come across thirty-five cases of unquestionable ectopic gestation. Of these there had been but one ovarian and three interstitial, the remainder being intra-peritoneal. There was no instance of extra-peritoneal pregnancy. In none of these cases had the condition been diagnosed when a physician happened to be called in previous to death. The histories showed that all the women had been engaged in hard work, subjected to violence, or were laboring under special excitement. His conclusions were that the condition of extra-uterine gestation was a much more common one than was supposed, and that a certificate of heart disease or any other such vague statement frequently, though unwittingly, covered up the real facts.

#### SURGICAL SECTION.—THIRD DAY.

Dr. Edmund Andrews, of Chicago, read a paper on Cadaver Studies on the Removal of the Semilunar Ganglion Through the Floor of the Cranium.

Relapses of facial neuralgia, after stretching or resecting the nerve for its relief, are very common. Even after resection relief is sometimes obtained temporarily by a second operation, loosening the end of the nerve in the cicatrix. The author thinks that this neuralgia is often caused by a neuritis, which, beginning at the periphery of a nerve, travels upward, finally affecting the semilunar ganglion. With a view of reaching this ganglion work has been done on the cadaver, and a method established which he considers the best for its removal. An H-shaped incision is made over the zygomatic arch, which is sawed through at both ends, and turned down with the lower flap.

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The coronoid process is then sawed through and included in the upper flap. The inferior dental and gustatory branches of the inferior maxillary nerve are reached through the masseter and internal pterygoid muscles, and followed up to the foramen ovale. The ganglion is reached by trephining the edge of the foramen. The ganglion is dissected from the dura, to which it is firmly attached. A similar operation has been twice done by Rose, of London.

Dr. Lawrence Turnbull, of Philadelphia, read a paper on Deaths from Chloroform and Ether Since the Hyderabad Commission.

The author has collected thirty-nine deaths from chloroform and four from ether. With neither anesthetic is the cause of death always the same, and both heart and respiration should be watched. In the discussion the necessity of giving chloroform slowly was brought out.

Dr. W. W. Keen, of Philadelphia, read a paper upon Linear Craniotomy for Microcephalus.

This operation is often miscalled craniectomy, which implies removal, whereas in reality it is a long incision. This incision is carried from the frontal eminence parallel with the frontal suture across the lambdoidal suture, and a narrow piece of skull removed. This operation is as successful as making two incisions, and less dangerous.

Dr. John A. Wyeth, of New York, read a paper on Supra-pubic Cystotomy.

The abdominal wound is treated by the open method. The bladder is closed only when it is perfectly healthy, otherwise the wound is left to granulate. This is the safest rule to follow in supra-pubic bladder operation. Twenty-three cases were reported without a death.

Dr. W. R. Townsend, of New York, read a paper on Sprains of the Ankle.

Flat-foot is not infrequently the result of improperly treated sprain of the ankle. The leg should be elevated, and strips of adhesive plaster carefully applied in different directions over the seat of injury, and a pressure bandage put over this, or in case of a more severe injury, a plaster-of-Paris bandage should be put on for a few days only. The patient may use the foot within reasonable limits after the apparatus is applied.

Dr. Robert Newman, of New York, read a paper on Platinum Needles for Electrolysis.

Platinum is by far the best material for needles, but is so easily bent that it is often difficult to manipulate. To overcome this difficulty the author has made a steel needle with a groove, which is first put in and the platinum needle inserted along the groove. The steel needle is then withdrawn.

#### CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, March 10, 1891, Dr. T. P. Satterwhite, President, in the chair.

Dr. William Cheatham read a paper on Tumors of the Pharynx, Naso-pharynx, Larynx, and Esophagus, of which the following is an abstract:

The paper dealt only with those growths that had come under the personal observation of the writer. He first spoke of the similarity and dissimilarity of fibroma and polypi when located in the naso-pharyngeal space, and cited one case of the former in which typical symptoms of total occlusion were present; the growth sent short horns into each nose posteriorly. Considerable difficulty was experienced in its removal, but its successful accomplishment is described as follows: "I decided, if possible, to remove the growth by means of the cold snare. As I expected, I found much difficulty in getting a wire around it. By taking a small malleable wire with a thread attached I succeeded in getting through each nose from the front, and pulled back a small tape and tied the soft palate forward. Another string was passed in the same way, and to this was attached the wire of the snare, which by traction was pulled up into the naso-pharyngeal space, and by manipulation with the finger was gotten around about half the tumor. The Jarvis snare, which I here exhibit, was used. After all traction possible had been made by the hand, I took a strong pair of gas pliers and worked the screw as far as I could with it, but could not cut the growth through. After four hours of trial with this I removed the snare, leaving the steel wire in position. I then attached my galvano-cautery snare-handle to the steel wire, and turning on the current slowly had the part

of the growth removed in about two minutes; the steel wire burnt after the growth was cut through; the tapes were relaxed, but left in position prepared for any after-hemorrhage, which did not occur." A somewhat similar operation was done two weeks later, after which the patient breathed freely through his nose. This operation is much more simple than many proposed for the relief of this condition. "In fifty-eight cases reported by Lincoln, thirty-eight were removed by severe operations, such as resection of the submaxillary; only ten recovered. Fourteen operated on by galvano-cautery, with eleven cures and three relapses. He describes the operation as done during the past three years: The first step was tracheotomy and the insertion of an inflated plug into the larynx. Next the nose was split from tip to root, the nasal bones were broken aside or temporarily or permanently removed. The tumor was then attacked with forceps, scissors, and knives, and bleeding was from time to time controlled by actual cautery. In this way the nasal meati might be cleared roughly, but the pharyngeal part could not be reached. This was, therefore, attacked through the mouth; the soft palate was divided, and the tumor, or rather as much of it as would yield, was cut away with scissors and treated with forceps until a tolerable passage was produced. The results were very unsatisfactory, as one third of the patients succumbed to anemia, another third died from the immediate consequences—pneumonia and pyemia—and about one third escaped death after a long and complicated case of septicemia. Of these many have relapses. The essayist stated that present methods were the galvano-cautery, galvano-cautery snare, and electrolysis. He uses cocaine combined with resorcin as a local anesthetic; and, to prevent the bad constitutional effect of cocaine, he gives one or two five-minim capsules of sulphuric, or valerianic ether, and now has no trouble from cocaine at all, whereas it was of quite common occurrence before. He believes the constitutional effects of cocaine to be more rapid and dangerous when used in the nose than when given by the mouth or hypodermically, owing to the superficiality and close connection of the sympathetic system of the local-



ity with that of the respiratory and cardiac systems.

He also cites a case of mixo-fibroma of post nose in a gentleman sixty-five years of age, which returned after removal with cold snare, but which was eventually cured by removal with galvano-cautery. "Myxomata spring from nose, fibromata from pharynx, and the mixed form from where nose and throat join. The means of removal are same in each."

He described a case of fibro-sarcoma in a pale anemic boy, fifteen years old, filling entire pharynx and sending horns into each nasal cavity, and pushing palate forward and extending down so far as to permit of a large mass being removed by tonsillitome; very tough and elastic. Impossible to snare it. Frequent puncture with galvano-cautery knife (about seventy-five in all) resulted in shrinkage and final disappearance of growth. Mastoid perioritis, however, intervened. General condition fared badly, chronic diarrhea set in, and finally death resulted from exhaustion.

Diagnosis should be made by microscope. Had recently seen for the first time a polyp of pharynx. It was two and a half inches long, one half inch in diameter, and cylindrical. It was removed by cold snare, and base cauterized. It is not common.

Two cases of sarcoma of pharynx had recently come under observation. In the first no attempt was made at removal. The second returned rapidly after being twice removed. It is more common in the male. Prognosis unfavorable. Prefers galvano-cautery snare or electrolysis here also.

Had seen but one case of carcinoma of pharynx. History of carcinoma differs but little from sarcoma. Trust diagnosis to microscope. Treatment offers nothing.

The two general divisions of laryngeal growths are malignant and non-malignant.

The non-malignant are polyp (not common), fibromata (twice as common), myxomata (rare), cysts (not common), angiomatica (rare). They sometimes disappear spontaneously, are absorbed sometimes by pressure from intubating, are cured sometimes by internal administration of arsenic, but it is usually necessary to remove them.

Cysts of the epiglottis he had seen two; one was absorbed by chloride zinc. Neither returned. In one case a polyp was removed from larynx by means of Schröetter's laryngeal forceps, and the base treated with chromic acid. There was no return.

Malignant disease of larynx is common, though rare in trachea. Epithelioma (generally called carcinoma) is more frequent. Sarcoma is rare. Cylindrical or columnar-celled carcinoma is very rare.

Apparently malignant degeneration of previously benign growths is from time to time reported. Cancer of larynx may coexist with tubercular or syphilitic disease.

The writer reports four cases of malignant disease of the larynx. One case, a farmer fifty-six years of age, who was first examined in August of 1890, is still living. The microscope showed this cylindrical-celled sarcoma. Operations upon the larynx for malignant disease have been performed quite frequently, total and partial extirpation of the larynx being done. Comparison of results shows a little in favor of partial extirpation, viz., twenty-nine per cent of cases in the latter operation against eighteen per cent in total extirpation. But the mortality from the two operations is about the same, viz., forty-three per cent in total and forty-two per cent in partial extirpation. Some authors claim better results for the above operations, and attempt to prove a longer average duration of life than from tracheotomy alone.

"Morbid growths (carcinoma excepted) are not common in the esophagus. They are often extensions of the disease from neighboring organs."

Two cases of tumor of esophagus had recently been seen. One was a mucous polyp, which was removed by getting a thread around it and slipping the loop of snare down to its base. It is five inches long and one inch in diameter. Had been removed once before.

The second was a growth situate beyond the reach of the finger, but easily visible with Leiter's esophagoscope; was a large globular tumor, the character of which was undetermined. No operation was done, as the patient was getting along very well on fluids and semi-fluids.

## DISCUSSION.

**Dr. L. S. McMurtry:** This paper embraces such a wide scope of clinical work that it must elicit unusual interest. The cases were all of difficult character, and the operative measures required the highest skill for their successful execution. I wish to commend especially the management of the first case, in which Dr. Cheatham operated for a growth posterior to the naso-pharynx. By the method adopted the face was not disfigured, and the growth safely removed. I have seen two operations done for growths in this region, which were skillfully executed, but were bloody and dangerous, both proving fatal. The first was by Prof. Annandale, of Edinburgh. A preparatory tracheotomy was done and chloroform administered through the tube. A dissection was made through the bones of the face to the seat of disease. The second operation I saw in Billroth's clinic in Vienna, the operator being Dr. Eiselberg, assistant to Billroth. The patient died on the table. The malar region was penetrated by knife and chisels with severe hemorrhage.

**Dr. W. H. Wathen:** Dr. Cheatham's report will be very valuable to persons interested in that special work, in view of the fact that he not only reports most that has been done in these interesting and difficult cases, but reports his method of operating and successful results.

**Dr. T. P. Satterwhite:** I was exceedingly interested, and agree with Dr. Cheatham that all those cases that are likely to give the most hemorrhage should be done with the galvanocautery.

**Dr. J. M. Mathews:** I have recently read a monograph on the subject of strictures of the rectum, by Dr. Charles P. Kelsey, of New York City, in which I was greatly interested.

There is much to applaud in his treatise of this important subject, but in some things my ideas and experience are so at variance with his that in this paper I shall try and detail them. The paper is the more interesting for the reason that his report embraces ninety-six cases of the kind observed by him.

He gives the following classification of the varieties of stricture of the rectum:

Congenital. Complete. Partial.

1. Spasm.
2. Dysentery without.
3. Non-Venereal. (a) Dysentery; (b) Tuberculosis; (c) Inflammation; (d) Traumatic.
4. Acquired. (a) Ulcerative; (b) Tubercular; (c) Syphilitic; (d) Hemorrhoidal; (e) Cancerous; (f) Stricture of the rectum; (g) Stricture of the sigmoid flexure; (h) Stricture of the sigmoid flexure; (i) Stricture of the sigmoid flexure; (j) Stricture of the sigmoid flexure; (k) Stricture of the sigmoid flexure; (l) Stricture of the sigmoid flexure; (m) Stricture of the sigmoid flexure; (n) Stricture of the sigmoid flexure; (o) Stricture of the sigmoid flexure; (p) Stricture of the sigmoid flexure; (q) Stricture of the sigmoid flexure; (r) Stricture of the sigmoid flexure; (s) Stricture of the sigmoid flexure; (t) Stricture of the sigmoid flexure; (u) Stricture of the sigmoid flexure; (v) Stricture of the sigmoid flexure; (w) Stricture of the sigmoid flexure; (x) Stricture of the sigmoid flexure; (y) Stricture of the sigmoid flexure; (z) Stricture of the sigmoid flexure.
5. Cancer.

The first great division, it will be noticed, is congenital and acquired. In writing of or dealing with stricture of the rectum the idea intended to be conveyed is of a pathological change in the tissues, etc., a deviation from the natural brought about by disease. Hence I object to the consideration of congenital malformations, or to defining them under the head of strictures of the gut, for the reason that it is misleading to do so. Therefore I shall disregard this part of the division he has made. Indeed, exception could be made to the second of this grand classification, viz., *acquired*. I am quite aware of the fact that the term is often used in the sense herein applied, but to my mind a better term or classification could be used. It is very easy to understand how one can acquire a stricture, the result of venery, but it would be difficult to understand how one could acquire a spasmodic or cancerous stricture. But I will adopt, for the sake of discussion, the above classification, excepting the congenital variety.

**1. Spasm.** To this form of stricture I shall prefer two objections. First, if it be true that such condition ever exists (which I doubt) then it should not be classed as stricture at all, for the reason that no pathological change is manifest in the stricture, and no treatment could be given it *per se*. In other words, it would be but a symptom of some lesion or trouble outside the so-called stricture. Second, I believe that from the anatomical construction of the gut it would be utterly impossible for its lumen here to be so constituted as to be either perceptible or amount to an obstruction. I might add, that in all my examinations of this portion of the gut I have never seen a spasmodic contraction that could be called a stricture.

**2. Dysenteric.** Though it is frequently stated that dysentery is a common cause of stricture of



the rectum, I have never yet seen a case that convinced me of the truth of the statement. Many times I have seen patients who gave me the history of having had dysentery, and were treated a long time for the affection; but a close scrutiny of the case revealed the fact that the so-called dysentery was caused by an already existing stricture and ulceration. The rule here being reversed, the dysentery was the result, not the cause of the stricture. If dysentery really be a cause of stricture of the rectum, how very, very often we would expect to meet with it in our practice, considering the great number of people who have dysentery, especially in the warmer climates. Again, practitioners of medicine know that ulceration proper very seldom exists in the rectum after attacks of dysentery—the sloughing in these cases occurs from the gut above the rectum. I do not deny, for I am not convinced, that ulceration may sometimes be caused by repeated dysenteries or diarrheas, but my experience has not taught me that they are frequent causes of the affection. If a long-continued irritation is kept up in the rectum from any cause, the result would be, of course, an inflammatory deposit, resulting perhaps in ulceration and stricture; but I must confess that in searching for these causes the road to a conclusion has not been plain enough for me to put dysentery in the list as a common cause for stricture of the rectum.

*Tubercular.* Since the discovery of the tubercle bacilli, and the demonstrations that convince us of the tuberculous effect in the tissues, etc., it is self-evident that the affection is often met in the mucous membrane and the structures of the rectum. If the distinguished author had used the caption ulceration and stricture for his monograph, I could make no objection to his classifying tuberculosis as a cause. That ulceration frequently results from this no one can doubt, but the coincident stricture that follows other named causes, notably syphilis, is not due to ulceration. The disposition of tubercular tissue everywhere is to break down. Before the capacious rectum is filled with tubercular deposit sufficient to stricture it, it will have broken down from ulceration, and it must be by deposition that we can conceive of a stricture from this cause, because cicatrization

is so seldom and so feeble in these subjects that it would be the rarest accident to find it.

*Inflammatory.* This term is so broad and comprehensive that we must per force of reason admit it as a cause of stricture of the gut; indeed, as the one grand and common cause. For if a stricture form, from whatever cause, be it trauma, pressure, venereal, dysentery, cancer, tubercle, syphilis, ulceration, or what not, it is invariably due to the processes and products of inflammation. In no other way can a stricture be formed. It might be argued that a lesion or wound existing in the bowel by the reparative process healed and left cicatricial tissue, and that the stricture was the result of the cicatrix and not to the plastic infiltration of tissue. In answer, I would say that there could have been no cicatrix but for the inflammatory process; hence inflammation, being the cause of the scar, was in truth the cause of the stricture. The author says, under this head, "Any severe form of proctitis resulting in ulceration may be a cause of stricture." To this I freely assent. But the most difficult part of the whole matter is to tell the cause of the proctitis, which is inflammation. Not to his proposition do I object, but to the supposed causes asserted. For instance, in naming over several such he mentions as a cause of stricture "erosion and ulceration of hemorrhoidal tumors." Now, in the nature of things, can this be true? A hemorrhoid is in fact a tumor; by friction, etc., the mucous membrane on the tumor can become ulcerated. Supposing it does, how can that ulceration produce a stricture of the rectum? As we have intimated, stricture may result from two pathological conditions. First, from a deposition of plasma causing an obstruction, or, second, by cicatrization causing a stricture. Can either one of these conditions result from hemorrhoidal tumors being ulcerated? Certainly not. The inflammatory deposit would only involve the tumor alone, and a cicatrix on top of a pile would amount to nothing.

*Traumatism.* Under this head the author includes ulceration following operations or wounds of the rectum, and cites the surgical operation done for hemorrhoids and fistula in ano. In all my practice I have never seen

such a result after either operation. I can quite understand how the cicatrix resulting from the removal of too much skin from the anal region might cause a stricture of the anus. My friend, Dr. W. O. Roberts, of this city, has told me of recently operating upon a patient of this kind, the operation for hemorrhoids having been done by an experienced hand. I can not understand how a surgeon used to operating in this region would remove too much skin. But traumatic strictures are in fact inflammatory strictures. Inflammation is the result of trauma. So one class would include both. For brevity, this would be best.

*Venereal.* "Without assuming too much," says the author, "It may safely be said that beyond dispute there are three forms of well-recognized venereal disease in the rectum which may result in stricture." These are, first, chancre, second, and tertiary ulcerations due to unnatural sexual intercourse, either simply traumatic or the result of direct inoculation. Third, an unusual form of tertiary disease of the general nature of a gummatous deposit, variously described by different authors, and by Fournier, in a monograph, as ano-rectal syphiloma. The author leads us to believe that these three venereal causes, viz., chancre, secondary, and tertiary ulcerations are the most frequent way that stricture of the rectum can be produced by venery, and that they are due to unnatural sexual intercourse. Allingham reports that out of seventy patients suffering with stricture of the rectum thirty-five of them had a history of syphilis. I have frequently said that I believed that more than one half of the strictures met with in the rectum were the result of syphilis. If these statements be true, or half true, there must be a great deal of unnatural intercourse going on. But, happily, I think the author's premise or conclusions untenable. I have often said that in no single instance have I ever seen a stricture of the rectum caused by the history of a soft sore. I do not believe that it can occur. In this opinion I am backed by Allingham, James R. Lane, Coulson, Alfred Cooper, Christopher Heath, and others. These three causes are alleged to produce their effect by simple trauma or direct inoculation. Neither of these

can be true, certainly not one in ten thousand cases. Granting that the soft sore could produce an ulceration that might end in stricture, how, I would ask, can the soft sore get into the rectum? The author answers it, "by unnatural intercourse." (?) Admitting this part of the argument, I will have to admit that trauma would result, if I could not admit that the soft sore would end in a stricture. He classifies as a third venereal cause an unusual form of tertiary disease of the general nature of a gummatous deposit variously described. If venery can not be a cause in the way the author has described, and yet syphilis is given as the grand cause of stricture of the rectum. I can not understand why the third reason of venery is put down as "an unnatural form of tertiary disease of the general nature of a gummatous deposit." I beg to differ from the author so much as to say that instead of this being the unusual form, it is the usual and only form in which we find syphilis causing a stricture in the rectum. Ricord, Fournier, Heath, etc. believe this, and Mr. Bryant in his excellent *Practice of Surgery* ascribes these ulcerations and strictures of the rectum as "mainly syphilitic," and says foreign authors describe chancre disease of the rectum as venereal, but not syphilitic; in this country it is hardly recognizable. So say we in America. To conclude, if I were asked what is the prime cause of strictures of the rectum, I would answer, inflammation. But what causes the inflammation? In many cases I don't know, but ordinarily syphilis, cancer, and trauma, if by trauma can be meant a wound or lesion, from many causes. Outside of the two first-named causes, cancer and syphilis, I am satisfied that no one can tell the cause that originates the stricture. The scope of this paper will not permit me to discuss the treatment of stricture of the rectum, but I do want to say that I believe that in the great majority of strictures a cure is utterly impossible. Indeed, I feel like saying, once a stricture always a stricture, many authorities to the contrary notwithstanding.

#### DISCUSSION.

Dr. J. A. Ouchterlony: I do not know any thing about strictures of the rectum from a



therapeutic standpoint, but I have seen a good deal of rectal disease as a pathologist, and now and then I have come across these diseases in consultation and private practice. As I listened with great interest to Dr. Mathews' remarks I went over in my mind a rather large dead-house experience, extending over many years. I made *post-mortem* examinations upon hundreds and hundreds of cases who had died of dysentery. During war times we came across the most malignant forms of dysentery we ever see. I have seen cases where the lumen of the rectum was somewhat smaller than we ordinarily see it; generally it was the very reverse, but I have never seen a stricture.

I must call attention to the classification to which Dr. Mathews refers, in distinguishing between dysenteric stricture and inflammatory stricture, as if stricture was ever any thing but an inflammatory disease, and such I have never seen. My dead-house experience in cases of tuberculosis is fully as extensive, and I have never seen a stricture due to tuberculous disease. I have never known a case of tubercular disease of the bowel that did not terminate fatally, and in which the destructive process was not much more marked. We find tubercles of the intestines recurring as the result of infected food in infants, and where we find it in adults it is always the gravest form of tuberculosis, and I have never seen any thing approaching to stricture as the result of the tuberculous process. Have seen comparatively few cases of malignant stricture of the rectum *post-mortem*, and I have never made *post-mortem* examination upon a patient having died of syphilitic disease; on the contrary, I have seen quite a large number of cases of malignant stricture and syphilitic stricture during life, and indeed all the cases of stricture of the rectum I have ever seen belonged to those two classes. Have never seen any other kind, with the exception of perhaps a condition that ought not to be called a stricture; that is, where tumors of various kinds would press upon the bowel, and so encroach upon its lumen as to interfere with the passage. I am quite prepared to accept Dr. Mathews' statement on that subject.

Dr. W. H. Wathen: In listening to the discussion by Dr. Ouchterlony, when he alluded

to the fact that he has made hundreds of *post-mortem* examinations upon patients dying of violent forms of dysentery and never found a stricture, he gives this as an argument that dysentery could be a cause of stricture or in proof that dysentery is not the cause of it. I can not see how these *post-mortems* can prove that dysentery is not the cause of stricture. Strictures are not acute in their nature. They come on gradually. Nor is it an argument against assuming that dysentery may not be a cause, and that inflammation is the cause. That question of inflammation being the cause of stricture is simply asserting what is always true. It is simply asserting a process that results in stricture; but what starts the process? Is it dysentery, or is it something else.

The author was doubtless governed by what he supposed to be the original cause of this inflammation, so I can not see, why dysentery, if it involves not only the coats of the bowels, but also the peritoneum, would not produce stricture just as well as any other form of inflammation.

Dr. Ouchterlony: Dr. Wathen, unfortunately for his position, jumps at a conclusion. I did not limit my remarks to acute dysentery. We all know the dysentery here was extended over years, and we continued to make *post-mortem* examinations in these cases years and years after the close of the war. The great majority of them were not acute dysentery, because those cases we did not see in the hospital here. The cases of acute dysentery upon which Dr. Wathen bases his argument, if they died at all, died at the front. The cases which we saw were those who had sufficient vitality to struggle through the acute attack, and the disease had passed into the chronic form. I simply stated an incontrovertible fact. Of all these hundreds of *post-mortem* examinations, of which I have reports extending over many years, not a single one furnished the slightest evidence of stricture. That is the fact. Now if dysentery is, as the author of this brochure says, the cause of stricture, is it not singular that in all these *post-mortem* examinations not a single case of stricture was found? There were one thousand one hundred and fifty beds, and we sometimes made as many as five or six

*post-mortem* examinations a day. Long after the close of the war I was pathologist to the City Hospital, and in all the *post-mortem* examinations I made I never made a *post-mortem* of a case where there was any evidence of stricture. I was simply stating a fact, not making any argument whatever.

Dr. Wathen: I did not mean if the patients suffered indefinitely. Dr. O. spoke of these cases being the most violent forms. If they were chronic forms, then that was all right.

Dr. Satterwhite: I was very much interested in Dr. Mathews' paper. I do not see how we could have a spasmodic stricture likely to come under the observation of the pathologist. I want to report one case that may be of profit to the gentlemen. There was a patient came to me from the country who complained of dysentery, that he had very painful stools, passed blood and mucus, and I treated him for dysentery. He would report, or some member of the family would report as to his condition once or twice a week, and that state of the case continued probably for a month. I gave him the usual remedies for dysenteric trouble, and to my surprise he never got any better. I then suggested to his wife that he come and let me make an examination. Examination revealed a stricture. He was operated on for stricture, and his actions were all natural afterward.

Dr. J. M. Mathews: I feel very much obliged to Dr. Ouchterlony for giving us his experience in these autopsies. This question probably interests me more than it does the balance of you, because it is in the direct line of my work. I stated the truth when I said I have never yet seen a case of stricture, and I have seen a great many, that, after carefully reviewing the symptoms and history, I could say resulted from dysentery, not one. Now, it is a very strong argument for Dr. Ouchterlony to say that out of hundreds of autopsies on dysenteric subjects he had not found a single case of stricture. Several months ago Dr. McMurtry asked me to practice an operation upon a lady who had tuberculous ulceration of the bowels. The operation was performed, curing her of the rectal disease, and she is dying now of tuberculosis pulmonalis. Now I am glad to hear Dr. Wathen make the point he did. I

weighed that point in my own experience. Chronic dysentery, if the doctor will stop a moment to think, is an after-consequence of acute dysentery. In regard to your case, Mr. President, it is, to use a common phrase, an every-day occurrence that I see cases like that. Every once in a while a man comes to me and says he has had dysentery for two or three years. Coming to me, I simply examine the rectum. I find strictures, syphilitic ulcerations, and many times cancer. My experience has taught me that sixty cases out of one hundred are syphilitic. Then I believe you could add of cancer thirty more, making ninety. The other ten I would say I do not know the cause of. It is inflammation from some cause. What the cause is can not be told.

Dr. G. W. Griffiths: The majority of cases in the army, especially near the close of the war, were affected with dysentery. Even to-day, in our experience as pension examiners, we find numbers of old soldiers who have had dysentery without subsequent stricture.

Dr. L. S. McMurtry: I would like to ask Dr. Mathews if it is not a fact, and if it is a fact what is the explanation, that at least seventy-five per cent of the strictures of the rectum occur in women?

Dr. Mathews: I think Dr. McMurtry states the per cent too high. The authors say, in tabulating their reports, it is more common in women than in men. They attribute it to pressure of the uterus during pregnancy, and to tumors within the abdominal cavity.

Dr. Wathen: Can there be stricture in the rectum without inflammatory condition?

Dr. Mathews: Certainly not.

L. S. MCMURTRY, M. D.,

Surg.

## MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated Meeting held Thursday, April 23, 1891.

The 725th meeting of the Society was called to order by the president, Dr. David Streett.

Minutes of previous meeting read and approved.

Dr. Wilmer Brinton exhibited a patient with purpura hemorrhagica rheumatica. Male, aged twenty-six, came under care about ten weeks



ago for an attack of rheumatism. Family history good, except that his father died of epithelioma of the lip. In the course of the last ten weeks his entire body has been covered with hemorrhagic spots. The throat and conjunctiva are involved, but no other mucous membrane, except perhaps the genito-urinary tract; but, as he has taken turpentine to the point of strangury, the blood in the urine may be due to that cause and not to any purpuric manifestation in the genito-urinary tract. His gums have been firm and appetite good throughout the attack, which has been in his favor. He has taken, during the last ten weeks, gallic acid, iron, ergot, turpentine, etc., and at times he would seem to improve, but in a day or two his body would become covered over again with a fresh crop of purpuric spots. The spots are smaller at this time than they have been heretofore. He had a patch on the right side, some days ago, that was about five by ten inches in size, where a mustard plaster had been. In answer to inquiries, he said that the patient had not taken any antipyrine to his knowledge.

Dr. D. W. Cathell said he had been fortunate in not being called upon to treat many such cases; he had seen eight or ten, but this case does not resemble any that he had ever seen. This is evidently due to a depraved condition of the blood; the spots in this case are so well defined and discreet they do not coalesce and do not show the lemon color on fading. In the other cases he had seen, the hemorrhagic areas were large blotches, some of which would measure seven by ten inches. As to treatment, he had found Blancard's iodide of iron pills to be beneficial in some of his cases.

Dr. F. C. Bressler said he had seen three or four cases, the first of which was an Italian, in whose case the purpuric spots were very marked about the joints; the case responded very slowly to treatment and finally passed out of his hands. About six weeks ago a young man came to his office, whose nose had been bleeding for some time. He had to plug the nostrils finally to control it. He was given some fluid extract of hamamelis. Next day he had some hemorrhagic spots on the mucous membrane of the lips, but the extravasations were not extensive;

he recovered under aromatic sulphuric acid. The reason he had asked if antipyrine had been administered was, that we know that drugs sometimes cause these extravasations, and he thought it might possibly be traced to some such cause. It was thought that purpura was a disease of the blood, but this view has been abandoned now; it is one of two things, either some toxic material circulating in the blood or a disease of the vessel walls, allowing of the extravasation of the blood through them into the adjacent tissues.

Dr. D. W. Cathell exhibited a case of alopecia universalis. A man, aged thirty-nine, family history good; there has not as yet been a death in the immediate family. The patient had never had occasion for the services of a doctor at any time in his life until he had *la grippe* in February, 1890. The attack was of nine days' duration, and he was treated by a druggist. During the next month (March) he noticed little patches of baldness here and there, and in May it extended from his head to his whiskers. He shaved for the last time on the 6th of October, 1890. At present (April 23, 1891), there is not a hair on his body. From being a man with an abundance of hair (as shown by his picture), with a heavy growth of whiskers, that barbers did not care to have him as a customer, he is now entirely and universally bald. He is in perfect health now, except a little dysuria. There are parasitic diseases which might destroy the hair, but these diseases are infectious, and as the patient has a family, they would be most likely to become infected, but as they show no infection whatever, we may disregard that source as the cause of the present condition. He was inclined to the belief that it was due to some glandular disturbance, possibly an interference with the nutrition of the hair follicles.

Dr. F. O. Bressler said these cases are very rare and the etiology is obscure; there are two theories in regard to it, one that it is neurotic, and the other that it is due to a bacteria; the neurotic theory seems to be received with more favor of the two. Prentiss, of Washington, has reported that jaborandi has a stimulating effect on the growth of the hair, in that it restores gray hair to its natural color. It is questiona-

ble whether jaborandi would be beneficial in this case, but it might be worth a trial.

Dr. Thomas A. Ashby exhibited a specimen of ruptured tubal pregnancy. A colored woman was suddenly seized with pain and collapse; her physician was called in and diagnosed a ruptured tubal pregnancy. Dr. Ashby was sent for and agreed in that diagnosis, but her surroundings were such that he thought it inexpedient to operate unless she could be removed. In two or three days she had another attack and she was brought into the Maryland General Hospital. She developed a peritonitis, and on April 21st he did a laparotomy. The pelvis was full of bloody serum and blood clots, the ruptured tube was excised and about half of the omentum had to be removed on account of its gangrenous appearance. She is doing fairly well, though she is not yet out of danger. She may perish from peritonitis or from septic trouble. The fetus in this case was not recognized, as is often the case in early ruptures. This occurred in the eighth or ninth week of gestation. The development of the fetus after rupture is dependent on the site of the rupture. If the rupture takes place into the peritoneum, the fetus is apt to perish; if it takes place in the broad ligament, it may go on to further development. Rupture generally occurs early, between the fifth and twelfth week; if it goes on beyond the twelfth or thirteenth week, it may go on to maturity. In answer to the question, "How long would you wait before operating?" he said it would depend on the surroundings of the patient. If the surroundings were such that asepsis could be attained, it would be advisable to operate immediately; if the surroundings were unfavorable, an effort should be made to tide her over until she could be moved to where the conditions would be more favorable. If the rupture occurs in the peritoneum, she may bleed to death in a short time; if it occurs in the broad ligament, she has a better chance.

Dr. Wilmer Brinton said: In the last ten years there has been a decided advance in our knowledge on this subject. Electricity is being abandoned, and it is being generally accepted that laparotomy is the best treatment. But every doctor can not do a laparotomy, and elec-

tricity in the hands of the average man will continue to be used. It is important that a diagnosis should be made in these cases. He knew of a case where the physician was called and saw the case within an hour of the attack; the doctor took it to be a case of colic, and gave her morphia and left some for her to take. He was sent for again, and saw her within seven hours from the attack, and she died while he was there.

Dr. F. C. Bressler said this condition can not be recognized before rupture takes place. This is accepted; so the general practitioner should bear in mind the possibility of an ectopic gestation when he is consulted by a woman for irregular menstruation, and where there are any of the earlier signs of pregnancy.

J. WM. FUNCK, M. D.,

*Lea and Nepp's Surgeon.*

## Reviews and Bibliography.

**Text-Book of Medical Jurisprudence and Toxicology.** By JOHN J. REESE, M. D., Professor of Medical Jurisprudence in the University of Pennsylvania, etc. Third edition, revised and enlarged. 666 pp. Price, \$3. Philadelphia: P. Blakiston, Son & Co. 1891.

In this age, so prolific of books in every department of medicine, medical jurisprudence has not been in the least neglected. Large volumes shed light upon every aspect of the science, and in scope can hardly fail to meet the requirements of every student. In one respect, however, nearly all of them have failed. Few of them sufficiently impress upon the student the high degree of uncertainty that is almost inseparably connected with medico-legal matters. The discoveries of Darwin in natural history resulted in the doing away with the limitations of species and genus, and the establishment of the fact that no hard and fast line marks the distinction between different classes. In the fullest expression we need the application of this principle to the practice, at least, of medical jurisprudence. This need has been well met by the work of Prof. Reese, so that those who read this book in the spirit in which it is written, when called to testify in court or to give advice, need not bring the profession



into such disrepute as has almost invariably befallen it in the past. "I don't know" is a lesson so well taught throughout the work that the dullest ought not to fail to profit by it. In addition to excellent method Prof. Reese has added a selection of whatever is most likely to be useful to the general student and the practitioner. The whole profession of medicine have occasion to be proud of the helpful work Dr. Reese has furnished them in this volume.

D. T. S.

**A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs.** By SAMUEL W. GROSS, M. D., LL. D. Fourth edition, revised by F. R. STURGIS, M. D. 173 pp. Philadelphia: Lea Brothers & Co. 1890.

Within a brief period from the first appearance of this classic work three large editions were exhausted, and the work was a second time out of print. In the mean time a translation had also been made and published in Russian. The death of its lamented author precluded further revision by him, and at the same time advance in this department of medical science called for a treatise embracing the newest thought and discoveries. Nothing better appeared than a revision of the superb work of Dr. Gross by one fully imbued with the author's views and also capable of meeting all the requirements of advancing knowledge. This has been thoroughly accomplished by Dr. Sturgis, and the student is favored with the work in all its original wealth of information and charm of style, together with whatever is of value among recent discoveries.

D. T. S.

**Essentials of Anatomy and Manual of Practical Dissection**, together with the Anatomy of the Viscera. Prepared especially for Students of Medicine. By CHARLES B. NANCREDÉ, M. D., Professor of Surgery and Clinical Surgery in the University of Michigan, Ann Arbor. Third edition, revised and enlarged. Based on the latest edition of Gray's Anatomy. Thirty handsome full-page lithographic plates, in colors, and one hundred and eighty fine wood-cuts. 400 pp. Price, \$2. Philadelphia: W. B. Saunders. 1890.

Of the very complete list of question compends making up the Saunders series, Nancrede's Anatomy appears to bear the palm,

both in the labor bestowed and in its great excellence. No branch of medicine, perhaps, is more facilitated in teaching by the use of questions and answers than anatomy. And in this work the author appears to have hit in the most happy manner on the important points to be remembered, and has set them forth in a way that apparently leaves nothing to be desired in this direction. But recognizing the fact that the study of anatomy must be grounded on dissection, and that in the time of need the surgeon must be able to call into mental view the exact and minute relations of all the parts, the publisher has added a series of plates, which both enables him to acquire this faculty and renders the work an excellent guide in the dissecting-room.

This work, full as it is, is not intended to substitute the larger works, but only to supplement them as teaching agencies. From cover to cover Nancrede's Anatomy and Dissector is a gem.

D. T. S.

**Wm. R. Warner's Therapeutic Handy Reference Book for Physicians.** 119 pp. Philadelphia: Wm. R. Warner & Co. 1890.

This handy reference book, while, as might be expected, keeping in the foreground as much as may be done with propriety the preparations of the renowned establishment it represents, gives in most convenient form the dosage of all medicines in use, tables of weights and measures, and a select formulary of prescriptions for the treatment of all the common forms of disease. It is a reference book well worth preserving.

D. T. S.

THE LONG ISLAND COLLEGE HOSPITAL FOR 1891 has made the following changes: (1) The regular course of lectures will hereafter be six months in duration. (2) Three courses of lectures will hereafter be required for graduation. (3) Joshua M. Van Cott, jr., M. D., has been appointed Professor of Histology and Pathological Anatomy *vice* Frank Ferguson, M. D., who has resigned. (4) The medical class of the present year numbered 250, the graduating class 82. (5) 20,830 patients were under treatment in the hospital and dispensary during the year 1890.

## Abstracts and Selections.

THE CONDITIONS OF THE PROPAGATION OF DIPHTHERIA. The interest which ever centers in this disease, its increasing frequency, and its fatality, constitute our excuse for again reverting to this subject.

The microbial origin of diphtheria was affirmed as early as 1861 by Laboulbigne, who described parasites which he had found in the false membranes, and at a later day Letzerich, Talamon, and Quinquaud called attention to certain bacteria to which they attributed the origin of this disease. It was not, however, till the researches of Klebs in 1883, and those of Loeffler the year following, that any precise data were advanced respecting the specific contagion of diphtheria. Klebs discovered a peculiar micro organism in diphtheritic membranes, and this was described with more precision by Loeffler, who succeeded in isolating and cultivating it, and with the products of a pure culture he inoculated animals, reproducing in them a disease strikingly resembling diphtheria. In no case, however, did Loeffler note the super-vention of paralysis.

Loeffler's memoir, published in 1884, is a model of the caution and reserve which should characterize a scientific treatise. He had failed to find the bacillus of Klebs in certain typical cases of diphtheria; he had found a bacillus just like this in the mouth of a healthy child. This experimentation was continued by Roux and Gersin, who announced in 1888 that they had detected Klebs' bacillus in all the cases which they had studied; and after having reproduced the disease in animals (fowls, pigeons, guinea-pigs, and hares) by the inoculation of pure cultures, they have in several instances witnessed paralysis similar to what is observed in man as a sequel of diphtheria. They have finally proved that these cultures contain a poison (ptomaine) which, according to the dose, kills the animals rapidly or gives them paralysis. They have also shown that the bacillus does not develop on a healthy mucous membrane, and that to obtain a false membrane it is necessary to irritate the mucous surface, or, better still, to excoriate it or deprive it of its epithelium.

The persistence of the virulence of Klebs' bacillus has also been shown by these experimenters. A culture in bouillon kept six months from the light in a closed tube, when sown anew, gave strong, healthy colonies, which, when inoculated in guinea pigs and hares, proved to be exceedingly virulent. A culture in serum, kept five months from the light in a tube stopped with wadding (which of course did not exclude the air), had a feeble virulence, but when sown

in a new culture field recovered all of its original activity.

Sevestre, from whose just published *Études de Clinique Infantile* we have borrowed, cites from his own experience and that of his colleagues cases tending to prove the extraordinary vitality of the contagion of diphtheria. A young girl at Passy contracted diphtheria from handling clothes worn by her mother two years before during an attack of diphtheria, and which had not been disinfected. Worms relates the case of a man who, when suffering from a simple attack of quinsy, painted his throat with an old camel's hair pencil which he had taken, wrapped up in a paper, out of a drawer. This pencil had been used four years before to make applications to the throat of a child sick with diphtheria, and by using it the man contracted the disease.

Other instances of a similar kind are on record. One related by Dr. Grellet, of Algiers, attributes with some probability the derivation of the contagion in a fatal case to the occupancy by the patient of a room where seven years before three children had died of diphtheria. The room had not subsequently been cleaned, white-washed, or papered. A more remarkable case still is recorded by Dr. Legrand, and cited by Sevestre. An epidemic of diphtheria broke out in a village of Normandy, and the contagion was traced to a boy fourteen years of age, who was the first to come down with the disease. This boy was the son of a gravedigger, and had, a few days before the onset of his sickness, been employed with his father in digging up and removing to another part of the cemetery the bodies of a number of persons (mostly children) who twenty years before had died of diphtheria. In this instance, if the disease was thus contracted, the germs of the disease must have remained dormant during all these years, ready to manifest their pathogenic presence, to develop and multiply, when the favorable conditions appeared.

In a previous number of the Journal we have alluded to similar facts recorded by other observers, and if we have again returned to the subject it is because we regard it as one of great importance from the point of view of prophylaxis. If the diphtheritic bacillus or its germ possesses such enduring vitality and virulence, how painstaking and thorough ought all measures of isolation and disinfection to be when it is a question how to stamp out an existing epidemic, or how most effectually to prevent any after mischief.

The direct transmission of the disease by the false membrane has been observed again and again, and physicians and nurses who are compelled to make local applications to the throats



of their diphtheritic patients can not be too careful not to be infected by receiving into their eyes, nose, or mouth fragments of diphtheritic patches which patients in their struggles or fits of coughing may expel.

Can diphtheria be carried in the clothing? From what has been said above of the vitality of the virus, one would be disposed *a priori* to give an affirmative answer to this question, and the facts justify such answer. Sevestre relates the history of a patient in his service at St. Antoine who took diphtheria when recovering from typhoid fever. This patient's sister, an attendant in the diphtheria wards of Trousseau Hospital, had visited the patient a few days previously and had left with him her shawl. This Sevestre thinks was without doubt the cause of the contagion. Cases of the same kind are related by Salter and others. That diphtheria is also communicated by contact with a person who has had this disease, even during the period of convalescence, when no false membranes any longer exist, unless through the clothing, may be regarded as doubtful.

As to whether the contagion may infect the inspired air, there certainly seems no reason to doubt that a patient suffering from croup or diphtheria may, during fits of coughing, expel particles of false membrane or minute portions of mucus which may for a time remain suspended in the air of the room and render it infectious. It is, however, proved that the contagion of diphtheria is but little diffusible, and that, as a rule, in order for contagion to be imparted there must be contact between the sick person and the person to be infected. Lanery, Bard, and Bretonneau insist upon this proposition, and instances are sufficiently numerous where the disease has attacked all the members of one family and spared the neighboring families, where it has prevailed in one part of a tenement and spared the family living in the other part.

Within a few years numerous facts have been published assigning to diphtheria a near kinship if not identity with a disease prevalent among fowls (the *pip* or *pepie*), and it has been argued with some plausibility (memoirs of Wolff, Nicate, Paulinis, Delthel, Turner, Menzies, Teissier), that diphtheria in the human subject is often contracted from the fowl. It is hard to gainsay the facts published by the above mentioned observers, and instances of the kind are accumulating.

At what time does diphtheria begin, and when does it cease to be contagious? Bard says from the very first day of its appearance, before the formation of membranes even, and he cites facts to prove its contagiousness all through convalescence till the thirty-fourth and

fortieth day. Ogle knew a child convalescent from diphtheria, after a month of quarantine and return to school, to give diphtheria to nine of its playmates. It is probable that in this case and those of Bard the germs had remained in the clothing, and that had suitable disinfection been practiced early the communication of the disease would have been prevented. It is to be inferred, from all that we know about the contagion of diphtheria, that the patient ceases to produce germs after the active manifestations of the disease have ceased.—*Bost. Med. and Surg. Jour.*

**BILLROTH'S OPERATION FOR FISSURES OF THE HARD AND SOFT PALATE.**—This method is described by F. Salzer. By preference the operation is delayed till the patient has reached the age of fourteen. Young children are rarely operated upon. The Ferguson incision, for relief of tension, through the muscles of the uvula is discarded, and instead the median plate of the pterygoid process is divided subcutaneously at the base of the hamular process. This allows the point of muscular attachment to be displaced inward *en masse*, thus relieving the tension. This has been done in fifteen cases. The operation is done with the patient recumbent and head dependent. The edges of the defect are refreshed, both of hard and soft palate. Hemorrhage during the operation is controlled by gauze tampons. After the lateral incisions on the outer side of the hard palate along the alveoli, beginning at the second or first bicuspid tooth, and extending to the posterior border of the alveolar process have been made, a chisel is inserted into the posterior angle of this incision against the pterygoid process, and by a few blows in backward and upward directions the median plate of the pterygoid process of the sphenoid bone is split off. Through prying motions of the chisel or elevator (a safer instrument) it is possible to displace this bone so far inward that the edges of the wound of the soft palate may be brought into apposition. The separation of the bridging flaps of the muco-periosteal covering of the hard palate is done according to the Langenbeck method. In order to approximate the wound edges to each other at the border of the hard and soft palate, it was sometimes necessary to divide the nasal mucous membrane at the posterior edge of the floor of the mouth with Langenbeck's button-tipped scalpel. The sutures are set, two (at the most three) auxiliary sutures (quilted sutures) of the hard and soft palate, which bring the median edges of the wound squarely up together, and prevent any tension on the few button sutures applied later. The sutures are inserted with simple straight, obtuse curved,

double-edged needles having the eye in the point, and are partly drawn through by Ferguson's loop method. The sutures are tied, the nose and mouth well irrigated with three-per-cent salicylic-acid solution. Finally the lateral wound fissures and cavities are firmly packed each with a small strip of iodoform gauze. This packing is antiseptic and controls hemorrhage. It is of great importance in immobilizing the parts of the palate which have become movable, and relieves tension of sutures. It is therefore left *in situ* ten days. The description of the above operation is somewhat unsatisfactory in regard to anatomical detail, which a later publication will perhaps make more intelligible.—*Ibid.*

THE TREATMENT OF EARACHE.—Otalgie, according to Dr. Gompers, may be grouped as follows: The pain connected with otitis externa; the pain associated with otitis media; otalgia nervosa. In all cases it is violent. Otitis externa occurs either as a circumscribed furuncle or as a diffuse inflammation of the auditory canal. In the first instance the pain subsides most rapidly if the furuncle is freely split open with a tenotome. If, however, the patient refuses to submit to this little operation, a solution of five parts of lead acetate and one part of alum in one hundred parts of water, applied on a small pledget of cotton to the furuncle, will lessen the pain materially. The bougies of Gruber may be substituted for the solution:

Extr. opii aq. .... 1 part.  
Gelatin alb. .... 50 parts.

These are introduced into the auditory canal, where they readily dissolve. The diffuse inflammatory condition is treated best with a five or ten-per-cent solution of cocaine muriate, applied warm. Otitis media, which, as a rule, is associated with a myringitis, is characterized by the most violent pain. If the stage of suppuration has not yet been reached, the whole process may be anticipated by instillation of cocaine solution into the auditory canal, which is repeated every hour or two. Should this fail, carboglycerite of twenty per cent strength must be employed, if we would obtain good results: if suppuration has already set in, and bulging of the membrana tympani becomes visible, paracentesis of the membrane will afford prompt relief. Antiseptic washes complete the treatment. In cases of chronic otitis this cleansing should be preceded by the application of fifteen or twenty drops of a five-per-cent papain solution, which is permitted to remain for one hour, during which time the scales of hard, dry pus will soften and escape with the ear-wash. In contradistinction to otitis externa

and media, otalgia nervosa is not dependent upon any aural inflammatory condition. It may be idiopathic, in which case there is often no cause apparent; or it may be sympathetic, the pain being reflected from some local condition of adjacent parts, *e. g.*, carious teeth, dental abscess, swelling or inflammation of the cervical glands, the throat, etc., and subsides when the affected parts return to health.—*Centralblatt für die Gesamte Therapie.*

INSANITY AS A SYMPTOM OF BRIGHT'S DISEASE.—In the October number of the *Alienist and Neurologist* appears Dr. Alice Bennett's paper with the foregoing title—a paper read in June before the Medical Society of the State of Pennsylvania. Dr. Bennett emphasizes Hack Tuke's declaration that the psychological theory of insanity has prevented advance in the study of those forms of disease of which mental alienation is the most prominent, but by no means the sole or even the most important symptom. Blinded by psychology, a century of observation and the lives of hundreds of men have been lost. Insanity is a symptom, or group of symptoms, that not always in its beginnings manifests disease of the organ of which it is the perverted action. Whatever the initial step leading to disordered brain action—exclusive of organic or developed insanity—the remote effects are similar. If not checked, the process ends sooner or later in dementia—in the limited function of a more or less impaired brain tissue. The general practitioner is usually the one who has the opportunity of studying insanity in its inception, at the time when preventive measures may be attended with gratifying results. Sankey separates what he calls "ordinary insanity" from paresis, epilepsy, organic and developmental insanity. Speaking of the etiology of ordinary insanity, he says: "The disease consists in a morbid state of the blood or of the processes concerned in nutrition." And he goes on to state that during the earlier period of the disease the symptoms are due to an alteration in the blood, in its quality and in its amount; there is some congestion with interstitial deposit of serum and of protein compounds; then atrophy of the brain substance and hypertrophy of the vessels. At first symptoms are due to the circulation of impure blood, next to excessive supply, then they evidence the imperfect function of altered cerebral tissue. Following this trend of thought Dr. Alice Bennett makes some suggestions along a certain line that is the result of clinical experience. An analysis of sixty cases is given, together with interesting and instructive references to all the literature of the subject. The thirty-nine pages evince



much care and thought, and furnish to the student a point of departure that may eventually lead to investigations of the greatest moment. The prophecy made earlier before the British Medical Association, "It is by chemical rather than biological investigation that the causes of disease will be discovered, and the power of removing them obtained," is constantly *en evidence*, and is every day making itself felt.—*Medical Record*.

**THE OPERATIVE TREATMENT OF GOITRE.**—A valuable article with the above title has been written by W. W. Van Arsdale, which reviews the surgical part of this affection to date. An extensive bibliography is appended. The article is worthy of a careful perusal by those interested in this subject, but too extended to do more than to reprint the writer's *resumé* on certain points.

In regard to choice of operation for all kinds of goitre, the exophthalmic variety excepted, he concludes: With large nodes in simple goitres, enucleation is preferable; when impracticable, resection. With nodes in immovable growths, where there is some danger of suffocation, enucleation; if the danger increases, *évidement*. With very soft nodes in simple or immovable goitres, *évidement* (for the sake of dispatch). Numerous small nodes, partial extirpation; no sound tissue is present which may be left, resection. Vascular tumors, ligation of arteries; cysts, enucleation. Diffuse hypertrophy, partial extirpation; if no sound tissue is present which may be left, resection. Malignant growths, total extirpation, for which amputation may be substituted. Acute thyroiditis in simple goitre, total extirpation; acute thyroiditis in cystic goitre, enucleation; incision and drainage where dispatch is necessary. When the nature of the tumor is unknown, or if the elected operation proves impracticable, resection.

Injections are reserved for cases where for any reason an operation is contra-indicated. Of the various fluids in use—namely, tincture of iodine, Lugol's solution, arsenic, ergotine, Fowler's solution, osmic acid and iodoform—the latter seems most worthy of trial. This is the von Mosetig-Moorhof method, used principally in soft parenchymatous or follicular cases with excellent results:

Iodoformi .....	1.00
Ether sulph .....	
Ol. olivæ } aa .....	7.00

Sig. Dose one to two grams (15 to 30 minims) every three to eight days. Repeat five to ten times in all.

The indications for operation are: Suffocative symptoms, dyspnea (even only after exertion), rapid growth of tumor, difficult deglutition, in-

terference with patient's usefulness or enjoyment of life. Age does not contra-indicate an operation.

The complications which may occur during operation are: (1) hemorrhage; (2) gross lesions of the nerves, especially the sympathetic, the pneumogastric, the hypoglossal, and the recurrent laryngeal nerve; (3) injuries to the adjacent organs, especially the esophagus and the trachea.

Those directly following are: (1) the inflammatory, or (2) septic complications, such as aphonia due to tumefaction of the mucous membrane, and acute suppuration of the visceral space of the neck, with cellulitis and consequent burrowing of pus and anterior mediastinitis.

Among the more remote consequences of thyroidectomy are: (1) acute mania following operation, (2) epilepsy, (3) tetany, (4) hysteria, (5) myxedema, (6) recurrence of malignant tumors *in loco* and elsewhere, with adhesions of the capsule to the growth, envelopment of the large veins of the neck and the nerves in the growth, extension below the sternum, etc.—*Bost. Med. and Surg. Jour.*

**THE PRESCRIPTION OF IRON IN ANEMIA.**—In his interesting articles on anemia, Dr. Stephen Mackenzie discusses with some care and anxiety the proportions of alkali to be combined with sulphate of iron in Bland's pill. Let me assure Dr. Mackenzie and your readers that these proportions are of no importance whatever, and that the alkali may be omitted without therapeutical loss and with much practical convenience.

For the last five years of my practice I ceased entirely to use alkali, and my results were equally good. The mistakes and failures in treating adolescent and chlorotic anemias are often due to the prevailing economy in the use of the iron. With five, or even ten-grain doses of citrate of iron little real progress may be made in many cases. No form of iron is so efficient as the sulphate, of which gr. j, thrice daily, is to be given for a week, then two-grain doses for ten days, and so on till nine, or even twelve grains are taken in the day. The drug should be gradually reduced in like manner, and the course should never be less than three months in duration, or relapses may occur. In obstinate cases the addition of  $\frac{1}{30}$  gr. of strychnine, or  $\frac{1}{4}$  gr. of phosphide of zinc are invaluable gr.  $\frac{1}{2}$  to  $\frac{1}{4}$  of extract of aloes to prevent the able aids. Most patients require the inclusion constipating effect of the sulphate; but Dr. Mackenzie rightly denies that constipation is the cause of chlorosis, or even generally coincident with it. This error is due to reasoning from an insufficient number of careful records.

Iron pills should be carefully made from the dried sulphate, and not with gums, which by hardening make the pills insoluble. In any case it is better to order the pills to be freshly made every week, if not even more frequently. Patients who are unable to take pills are best treated with the saccharated carbonate of iron, of which three or four large raspentuls may be given in the day. *T. Clifford Allbutt, British Medical Journal.*

**DISLOCATION AND FRACTURES OF THE NECK OF THE FEMUR.**—Dr. Keen gives the following tables in the College and Clinical Record:

EXTRACAPSULAR.	INTRACAPSULAR.
1. In women more frequently.	1. Usually in the femoral neck.
2. Usually in the femoral neck.	2. Usually in the femoral head.
3. Usually in the femoral head.	3. Usually in the femoral neck.
4. Usually in the femoral neck.	4. Usually in the femoral head.
5. Usually in the femoral head.	5. Usually in the femoral neck.
6. Usually in the femoral neck.	6. Usually in the femoral head.
7. Usually in the femoral head.	7. Usually in the femoral neck.
8. Protrusion of the femoral head.	8. Protrusion of the femoral head.
9. Usually in the femoral neck.	9. Usually in the femoral head.

He also gave this table as a differential diagnosis between intra and extra capsular fracture of the neck of the femur:

EXTRACAPSULAR.	INTRACAPSULAR.
1. Usually in the femoral neck.	1. Usually in the femoral head.
2. Usually in the femoral head.	2. Usually in the femoral neck.
3. Usually in the femoral neck.	3. Usually in the femoral head.
4. Usually in the femoral head.	4. Usually in the femoral neck.
5. Usually in the femoral neck.	5. Usually in the femoral head.
6. Usually in the femoral head.	6. Usually in the femoral neck.
7. Usually in the femoral neck.	7. Usually in the femoral head.
8. Usually in the femoral head.	8. Usually in the femoral neck.
9. Usually in the femoral neck.	9. Usually in the femoral head.

**SIMPLE TREATMENT OF INGROWN TOENAIL.**—The Pittsburgh Medical Review, February, 1891, cites Dr. Puerekhauer (from the *Münchener med. Wochenschrift*) as recommending a simple and at the same time competent treatment for ingrown toenail.

A forty-percent solution of potassa is applied warm to the portion of the nail to be removed. After a few seconds the uppermost layer of the nail will be so soft that it can be scraped off with a piece of sharp-edged glass; the next layer is then moistened with the same solution, and scraped off; this must be repeated until the remaining portion is as thin as a sheet of paper, when it is seized with a pincette and lifted from the underlying soft parts and severed from the other half. The operation does not require more than half an hour's time, is painless and bloodless, while the patient is delivered from his suffering without being disabled even for an hour.

**DIFFERENTIAL DIAGNOSIS OF TUMORS.**—Dr. Keen gives this table as of use in making the differential diagnosis of the following varieties of tumors (Medical Record):

Benign.	Malignant.
1. Usually in the femoral neck.	1. Usually in the femoral head.
2. Usually in the femoral head.	2. Usually in the femoral neck.
3. Usually in the femoral neck.	3. Usually in the femoral head.
4. Usually in the femoral head.	4. Usually in the femoral neck.
5. Usually in the femoral neck.	5. Usually in the femoral head.
6. Usually in the femoral head.	6. Usually in the femoral neck.
7. Usually in the femoral neck.	7. Usually in the femoral head.
8. Usually in the femoral head.	8. Usually in the femoral neck.
9. Usually in the femoral neck.	9. Usually in the femoral head.

**SOL. HYDRARG. PERCHLORIDE IN CANCER ORIS.**—In the British Medical Journal of January 31, Dr. Coward calls attention to the value of hydrarg. perchlor. in diphtheria. May not the action of the drug in this disease depend on its germicide properties, diphtheria having recently been found to be due to the presence of a bacillus? There is another serious affection which I have seen much benefited by the use of this drug. I allude to cancerum oris. Within the last few weeks two cases of this severe affection have been under treatment in this infirmary. In one case the right cheek was extensively ulcerated, and, what I believe to be rare, the tongue was also involved, the right half being one mass of gangrenous ulceration. The discharge was intensely foetid, pouring from the mouth as the child lay in bed. In both these cases sol. hydrarg. perchlor., 1 in 1,000, was used to swab over the ulcerated surfaces, of course taking all due precautions. The effect was almost magical. In a fortnight both children (they were brother and sister) were perfectly well, a slight scar on the tongue alone remaining. Good living, tonics, etc., undoubtedly assisted these cures. These chil-



dren infected each other, the elder being first attacked.

That there is a microbe in cancrum oris as well as in diphtheria, etc., is probably only a question of time to prove. If this be so, then the value of such a powerful germicide as the hydfarg. perchlor. in such cases must be evident.

The thanks of the profession are due to Dr. Coward for suggesting this treatment for diphtheria. I believe that if only a fair trial is given to this drug, whatever may be its *modus operandi*, the results will not be disappointing. *Edmund Rundle, F. R. C. S. I., British Medical Journal.*

THE ORGANISM OF CANCER.—In the Medical Press and Circular, December 31, 1890, Dr. Jabez Hogg gives a passing view of his own searches for the characteristic organism of cancer, and of Dr. W. Russell's recent paper upon the subject of its discovery. Dr. Hogg calls attention to the fact that the spores of thallophytes and cellulæares are always floating about in the air of town and country, and consequently they are often found in diseased structure exposed to the air for ever so short a time, and all decaying substances are naturally the seat of fungoid growths. Reflecting upon the universality of the distribution of lowly organized vegetable bodies, and their known disposition to set up chemical decomposition in the pabulum upon which they feed, places one at considerable disadvantage in any attempt to define the exact part the fungi play in any specialized form of disease.—*Medical Record.*

THE DIAGNOSTIC VALUE OF FLUORESCEIN DYE IN DISEASES OF THE EYE.—Drs. Fromm and Grovenonn, assistants in the eye clinic at Breslau, publish in the *Archiv für Augenheilkunde* an account of some experiments with fluorescein. They experimented with the potash salt of fluorescein and the soda salt of fluorescein, preferably with the former in a two-per-cent solution. One drop of this liquid is dropped on the conjunctiva. It is well afterward to wash the conjunctiva with water or any indifferent liquid. The normal cornea is never colored; but if it is anywhere denuded of epithelium, such spots and the whole region near them become stained of a diffuse green color, which generally disappears again in from two to three hours. The corneal substance is deeply impregnated with the color, but the epithelium is only slightly tinged on each side of the defect. Practiced observers have confessed that by no other means were they able to detect and map out a corneal lesion so well as with fluorescein. This chemical is most valuable for the diagnosis of

superficial injuries which are often difficult to recognize, as, if these do not take the stain, a fresh injury may certainly be excluded. Particles of rust which often remain after the removal of foreign bodies, and are difficult to recognize, are plainly distinguished from their green base. Every ulcer is of course colored, and a green coloration is seen over every abscess and infiltration. Opaque spots, however, do not stain, and so are distinguished from fresh lesions. In the conjunctiva the localities of any loss of substance are colored yellow, and injuries become visible which otherwise could not have been discovered. In conjunctivitis only phlyctenulæ become colored, and by this means they are distinguished from other nodular prominences. The deeper parts of the eye are not affected.—*London Lancet.*

METHOD OF ADMINISTERING SULPHONAL.—Every one who has used this drug must have noticed how much it varies in the rapidity with which its effects are produced, according to the method of administration: Given in powder on the tongue, its action is much delayed, and is occasionally only produced in its greatest intensity on the day after its administration. Given, however, with, for example, some hot soup, an hour or two before bedtime, its effect is not so long delayed, and is more certain. Dr. Stewart, of Philadelphia, has found a simple and satisfactory method of using this drug, which he describes in a recent number of the Medical News. He directs that just before retiring the dose of sulphonal should be placed in a tumbler, which is then filled two thirds with boiling water. This dissolves the powder. The solution is then stirred until it is sufficiently cool for drinking, or cold water is added to reduce it to a suitable temperature. Such a temperature is reached without causing any precipitation of the drug. To insure success, the sulphonal must be taken wholly dissolved, and the hotter the solution is when taken the better. By this method the period of so-called therapeutic incubation is done away with. Sleep results in most cases in a very few minutes, and is said to be sound and dreamless. Another advantage which this method of administration is said to possess is that it is not followed by the annoying drowsiness so often present on the day after the administration of the dose of sulphonal. The taste of the solution is said to be a little unpleasant, but this is easily overcome by the addition of some flavoring substance. Undoubtedly its insolubility is the great objection to sulphonal, and if it can be administered in this simple way, so as to produce its effect promptly and efficaciously, its value will be much increased.—*Ibid.*

**OCULAR TROUBLES IN TAIRES DUREALES.**—Dr. Berger in the *Revue de Médecine*, has drawn attention to this subject. He has observed 109 cases of the disease, and from the results of these observations he draws certain conclusions. He finds that in cases in which the condition has manifested itself in youth or in old age serious ocular troubles are not met with, and that it is when symptoms of the disease appear between the ages of twenty-five and forty that those complications for the most part occur. In half the cases observed the Argyll-Robertson phenomenon was present. In eleven cases it was accompanied by mydriasis, in fifteen cases the pupils were of usual size, and in two there was contraction of one with dilatation of the other pupil. He also found in a certain number of cases some irregularity in the shape of the pupil, and he remarks that when myosis is present with the Argyll-Robertson phenomenon the instillation of atropine causes a dilatation of the pupil, which may persist for four or five weeks. Atrophy of the optic nerve was found to be present in 33 per cent of the cases, and it did not occur simultaneously in the two nerves. The interval between the commencement of atrophy and the establishment of complete blindness was found by this author to vary from two months to seventeen years, and he states that it usually begins in the pre-ataxic stage, and that, this stage once passed, the danger of atrophy setting in is considerably diminished. Paralysis of the external muscles of the eye was observed in 38 per cent of the cases. It was found to occur usually in the pre-ataxic stage, to be as a rule transitory, and to be more frequent and more lasting in patients with a clearly specific history. In conclusion the author formulates a theory of the pathology of taires. In his opinion it originates in some change in a center in the medulla regulating the vaso-motor condition of the optic nerve and of the spinal cord. *Ibid.*

**MORVAN'S DISEASE**—This condition, first described about eight years ago by the physician whose name it now bears, is one of those apparently spinal diseases, associated with changes in sensibility and nutrition, manifesting themselves especially in the hands. The three symptoms on which at first a diagnosis was made were pains in the limbs at the commencement of the illness, paresis and analgesia, especially of the hands, and the appearance in one finger after another of whitlows, painless but destructive. Several cases have been described, but the pathology of the disease is still uncertain, some physicians regarding it as merely a form of syringomyelia, while Morvan

and his followers, relying upon the somewhat unsatisfactory examination of one specimen, regard it as due primarily to some change in the cord, associated with thickened arteries and secondary changes in the peripheral nerves. In the *Journal of the American Medical Association*, Dr. Church, of Chicago, gives a detailed account of a case which seems to answer to the description of this disease. The patient is a Swede, aged thirty-five, the commencement of whose symptoms date back to ten years ago, when he had a whitlow on the right ring-finger, which was painful, and has left the distal phalanx stunted and nail much altered. About this time also his back was noticed to become bent, although previously it had been quite straight. A few years ago, after bathing in a cold lake and driving afterward some distance, his left wrist, hand, and arm became swollen and painful. The swelling in the wrist has never quite subsided, and the carpus is now to all appearance disorganized but quite painless. Three years ago he had a painless whitlow on the right index-finger, in which now the distal phalanx is completely wanting, as well as a part of the middle one. In the same year the middle finger of the right hand suffered a similar mutilation, also from a painless whitlow. He now has these deformities in the fingers and the left wrist, has retention of ordinary tactile sensibility everywhere, but with loss of the power of distinguishing tactile from painful impressions in the hands. Above the hands this disability gradually disappears. There is also present marked lateral curvature of the spine; his gait is shambling, but displays no distinctive peculiarity; his reflexes are normal, and his mind is unaffected. The case is a peculiarly interesting one, especially in reference to differential diagnosis from syringomyelia, but more will have to be known of such conditions before a certain diagnosis is possible.—*Ibid.*

**SUPPURATIVE PERIOSTITIS AFTER TYPHOID FEVER.**—An interesting observation has been made with reference to those suppurations which sometimes follow typhoid fever. In a recent number of the *Sanjour Medical M. Archives* gives the results of the bacteriological examination of an abscess which formed at the inner side of the tibia of a patient convalescing from typhoid. The pus contained the bacillus peculiar to that disease and none others and the cultures on potato were quite typical, as were also their effects upon animals. Our knowledge of this class of abscess is so scanty that it is to be hoped that this observation will soon be supplemented by others.—*Sup. to British Medical Journal.*



# The American Practitioner and News

"NEC TENUI PENNÄ."

Vol. XI. SATURDAY, JUNE 6, 1891. No. 12

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE AMERICAN MEDICAL ASSOCIATION.

In the issue before this, and in this issue we have laid before our readers a condensed report of the doings of the forty-second annual meeting of the National Association.

The proceedings were creditable to the profession, but developed nothing of consequence above the commonplace of daily medical practice. The reasons for this are patent, and have been discussed at sufficient length in former years. For which reason we shall not bore our readers with a diatribe upon the threadbare theme.

Suffice it to say that until our great medical centers grow rich enough to support a great number of special investigators whose one thought is the finding of something new, and until such measures are devised and put into practice as shall secure the best efforts of the representative men of the entire country, the American Medical Association will continue to fall short in its scientific performances of the high standard which its well-wishers would have it reach.

In business and ethical ways little came to the surface. The problem of the future management of the Journal was pushed toward so-

lution, and some minor matters of professional interest passed upon.

The honor of the presidency went to the East as was proper, and Boston, Dr. Marcy, and the Association are alike to be congratulated in the event. Detroit will be the next place of meeting.

1818. **FORDYCE BARKER.** 1891.

In the death of Dr. Barker, which took place on the 30th of May, the profession loses a great man. From the beginning of his special work as professor of obstetrics in "Old Bowdoin" in 1850 till the date of his death, he has held his place in the front rank of the profession.

Dr. Barker was not only great in medicine; he was a man of learning and culture in literature and the sciences. Moreover he was a gentleman in the best sense of the word, adding to his intellectual qualities and attainments in full measure those moral, social, and spiritual entities which give to character peculiar symmetry and beauty.

He was truly "a good man, skilled in healing." May his useful, spotless, honored life continue to be a living example to us all.

## THE JOURNAL OF THE ASSOCIATION.

The trustees of The Journal of the American Medical Association found it impossible, in the time at their disposal, to deal with the vexed question of the future management of the periodical. An adjourned meeting was therefore agreed upon, with the following result:

"The trustees of the Association met in Chicago on Wednesday, May 13th, all being present except Dr. Shoemaker, who was represented by proxy. The question of appointment of editor being taken up, Dr. J. C. Culbertson, for many years editor of the Lancet and Clinic, of Cincinnati, was placed in nomination and received the unanimous vote of the trustees.

"Dr. Culbertson was also instructed to act as business manager.

"On Thursday, May 14th, the trustees, in company with the newly-elected editor, inspected The Journal office, and he was formally placed in charge.

The trustees bespeak for Dr. Culbertson the same kindly consideration that has been extended to his predecessors, and they feel sure that the results of the new management will show the wisdom of their selection.

"By direction of P. O. Hooper, President of the Board.

JOHN B. HAMILTON,

"Secretary."

We congratulate Bro. Culbertson on his lofty lift, and the Association upon having secured for the Journal the services of a man so admirably fitted for the place. In Dr. Culbertson may be found all the qualities of a first-class editor. He is a graceful writer, a good mixer, a hard worker, a heavy fighter, and a business success.

#### THE STATE SOCIETY.

The recent meeting at Lexington was characterized by a full attendance, good work, and a good time for entertainers and entertained.

Elsewhere in this issue will be found in full text several of the papers read, and the coming issue will contain a full report of the proceedings. In the election of Dr. Brown, of Hustonville, to the presidency the Society properly conferred its highest honor upon one of its oldest, ablest, and most useful members.

THE FIFTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL SOCIETY will be held at Bournemouth on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1891. President, Dr. Willoughby Francis Wade. An Address in Medicine will be delivered by Thos. Lauder Brunton, M. D., F. R. S., Lecturer on Materia Medica and Therapeutics at St. Bartholomew's Hospital, London. An Address in Surgery will be delivered by John Chiene, M. D., F. R. C. S., Ed., Professor of Surgery at the University of Edinburgh. An Address in Public Medicine will be delivered by Edward Cox Seaton, M. D., Lecturer on Public Health at St. Thomas' Hospital, London.

THE prohibition of the sale of tuberculin in Munich has now been made absolute. Druggists are forbidden to sell it even to medical men.

#### Notes and Queries.

THE MEDICAL PROFESSION IN JAPAN.—A recent number of the *Sei I-Kan Medical Journal* contains an interesting article on the present position of medical practitioners in Japan, in which we see that our *compatriots* in those distant islands have not been behind their fellow countrymen in the earnest efforts which all have been making to bring their country into the first rank among the civilized nations of the earth.

The writer of the article to which we refer divides the medical profession in Japan into four classes, viz: 1. *Kampō-ka*, or Chinese school; 2. *Kan-ran settō-ka*, or China Dutch school; 3. *Seiyo-ka*, or European school; and 4. *Senmon-ka*, or specialists.

Those included under the first head, the Chinese physicians, are the most numerous, comprising perhaps one half of the entire number of practitioners in the empire, but their number is rapidly decreasing since the new law in regard to medical licenses prevents any accession to their ranks. Most of them are of the older generation, few being under fifty years of age. They are absolutely guiltless of any medical learning, all the knowledge that they possess having been gathered by the perusal of the absurd medical treatises of the Chinese. Their medicines consist in certain herbs and the bark and roots of various plants, which are always given in the form of decoction; they occasionally also employ a few mineral preparations.

In the so-called China-Dutch school there are now about ten thousand members, or half as many as in the Chinese school. They gathered most of their knowledge in the same way as those of the first class mentioned, but they supplemented it by the study of some old works on medicine which had been imperfectly translated from the Dutch into Japanese. They treat disease much in the same way as the Chinese practitioners, but also use drugs of the European pharmacopœias, such as opium, calomel, iron, soda, asafoetida, aloes, santonine, etc. They are, as a class, liberal in their views, and the progress made by European medicine in Japan is due in no small measure to the en-



couragement offered by these practitioners, who, though unable to acquire the new knowledge themselves, recognized its advantages and did what they could to promote its spread among those of the younger generation. Some, indeed, did not shrink from the task of learning what was now presented to them by Western physicians; they studied the new science, adopted the new practice, and are now among the most learned and respected of the modern school in Japan.

The number of physicians who belong to the European school is about five thousand, but this number is constantly increasing in proportion as that of the former classes is diminishing. The practitioners included under this head are those who have been educated either abroad or in their native schools which are conducted under government inspection and are provided with competent instructors. The chairs in the university and in the various medical colleges are occupied by the members of this class, and all the important positions, both public and private, including those in the medical departments of the army and navy, are held by them.

In the fourth class are the specialists. Some of these are competent physicians, educated in the new school, and practicing a legitimate specialty, such as diseases of the eye, dentistry, obstetrics, or the like; but the greater number is made up of ignorant quacks, such as flourished in former days before scientific medicine had gained a foothold in Japan.

The medical practitioners of the new school in Japan at the present day are a superior class of men; they are intelligent, energetic, and enthusiastic; they regard themselves in the light of missionaries, and shrink from no task which they believe will forward the progress of rational medicine in their country. They have established medical societies and medical journals, and have even created a national medical association, the first meeting of which was held in Tokio in April of last year. They have passed from the stage of pupilage and now control themselves the course of medicine in their country, being no longer dependent upon foreigners either in their hospitals or in their university chairs. Even *Sei-I-Kwai Medical*

*Journal*, to which we are indebted for most of the information here presented, has no longer an American editor, its English department being now conducted (and most creditably conducted, we may add), entirely by native writers. In contemplating the admirable progress made in this most interesting country, we may becomingly indulge in a little modest self-complacency, since American medicine has had no insignificant part in promoting it.—*Medical Record*.

THE BACILLI OF MALARIA.—Dr. Andreas has recently published an interesting treatise on the comparative number of the bacilli of malaria in the air at different times of the day. His experiments, which were conducted in the Observatory of Moncalieri, and reported in the *Medicinische Neuigkeiten*, April 11, 1891, were carried out by means of small rubber balloons filled with hydrogen. On to these balloons he fastened a small box holding prepared glass slides, which box he was able to open by means of a cord, after the balloon had reached the desired height. Microscopical examination of the slides showed that in the early hours of the day the swarms of bacteria were close to the ground and in large numbers; later, at about nine o'clock in the morning until about three in the afternoon, they would rise until they reached a considerable height, and from that time would again gradually sink to the ground. The number of bacilli in the air was almost exactly in proportion to the rise of temperature, while in direct opposition to the amount of humidity in the atmosphere. It is evident, therefore, that the condensation of the watery vapors in the air cause the falling of the bacilli, and for this reason the morning and evening hours are the most dangerous in malarial districts.

DISEASES OF THE TROPICS.—An authoritative consideration of those diseases which give to the tropics their greatest stigma brings out the conclusion (based largely upon military returns) that although malaria is the most widely diffused and the most commonly talked-of and dreaded affection, yet dysentery is without question the most fatal.

THE METRIC SYSTEM AND THE SEVENTH DECENNIAL REVISION OF THE U. S. P.—Read before the Missouri State Pharmaceutical Association, 1890, by H. M. Whelpley, M. D., Ph. G. It is probable that in less than two years the seventh decennial revision of the Pharmacopeia of the United States of America will be in the market and ready for the pharmaceutical and medical professions. The progressive druggists of the country will adopt it as their law and guide in the manufacture of pharmaceutical preparations and the identification of all official substances. The doctors who are alive to the interests of the times will look to the pharmacopeia for all information that it contains for physicians.

Among the new features of the revised work will be the adoption of the metric system of weights and measures in the manufacture of preparations. The system of "parts" in the previous revision was more conveniently handled by the metric system than any other, but the new work will have the decimal system itself prescribed.

There seems to be some misunderstanding among the pharmacists of the country as to just what it means to thus adopt the metric system. Some have formed the idea that the doctors will then be obliged to write prescriptions in that system, and I have even talked with those who had conceived the idea that patients must give up the old fashioned drops, teaspoonfuls, etc., for cubic centimeters. Let such persons learn, once for all, that the pharmacopeia is not a guide in prescription writing or dosing. The adoption of the metric system signifies that druggists are to use it in manufacturing the official preparations made in the drug store. They can buy them, sell them, dispense them, and dose them out in any manner they see fit, for it in no way affects the manufacture. The convention at Washington recognized the system as being the most convenient for druggists to use in this manner, and perhaps it will be many a day before the medical profession becomes sufficiently advanced to adopt it in prescription writing.

Still less excusable is the complaint that some druggists have made when they objected to the new system, as it would cause them to throw

away their old scales and balances and buy new ones. Only those ignorant of the first principle of weights and measures could stumble into such a shallow complaint. As far as the weighing goes, only the new set of weights must be added. I do not think that any scales or balances are sufficiently stubborn in their innate nature to refuse to respond to metric weights.

Again, some one has objected to the metric system and refused to learn a new language for the sake of it. I think they must have studied "French in Twenty Lessons" or "German in Two Weeks" and become scared at the mere mention of a foreign word. It is, indeed, strange that it is necessary to answer such an objection as this, for the terms in the metric system are from the Latin and the Greek. These two languages go far toward making up all the words we learn in pharmacy and medicine. Then when we come to realize that the words "milligram," "gram," "cubic centimeters," "kilo," and "liter" are all that a druggist or doctor need learn, it is strange that any one should for a moment object to the system on the score of the language. In this connection I must quote from a committee of the American Association for the Advancement of Sciences, where it says: "For the use of these professions (medicine and pharmacy) six lines contain all that is necessary," as follows:

1,000 milligrams make 1 gram  
1,000 grams or cubic centimeters make 1 kilo or liter.  
1,000 kilos make 1 ton.  
60 milligrams make 1 grain.  
154 grains make 1 gram.  
31 grains make 1 carat Troy.

I advise those who object to the metric system to devote a few minutes to its study before they continue to condemn it.

In becoming familiar with the metric system, first study the principle of the system, and then learn its relation to other systems.

As nearly all of the text and reference books in pharmacy devote more or less space to the consideration of the metric system, there is no excuse for a druggist saying he can not find an explanation of the system. May the time soon come when they will all be familiar with it.



**ANTHROPOLOGY AMONG VILLAGE PEOPLE.** They do remarkable things in little towns. Our readers may not know that there is a new university, the "Clark University," in Worcester, Mass., with quite a number of mostly young workers and teachers who have the ambition of enriching science with new facts, and thereby adding to their own reputation and that of the institution. One of them is Dr. Franz Boas, well known in this country and in Europe for his geographical and anthropological writings. For the Canadian Government and our own he has been among the Indians of the far Northwest, after having sojourned among the Esquimaux of Baffin's Land several years. This man had the courage lately of applying to the Board of Education in Worcester for permission to take measurements on school children, on the same principles and for the same reasons which guided our own Bowditch thirty years ago, Quetelet in Belgium, Virchow in Germany, and so many others. The Board of Education readily granted the permission, but one of the newspapers got convulsed with fright, warned the public, appealed to the children, proclaimed the Clark University people vivisectionists, who alternated between living children and dead cats; described poor Dr. Boas as a monster, a duelist, a fiend; published letters from villagers who threatened his life with shotguns; called their Board of Education names for allowing "Fanny's nose" to be measured; scared President Hall into actual fear and pretended indifference about the whole matter, and proved that Worcester is no place for an institution of learning. Meanwhile a number of private schools have readily opened their doors to Dr. Boas; but the latest reports are that the morals of the Worcester paper are yet at boiling point, and further subscriptions are welcome.—*Medical Record*.

**DR. JAMES N. MARTIN** has been appointed Professor of Obstetrics and Diseases of Women at the University of Michigan. He filled the chair since Prof. Dunster's death.

**PHENOCOLLUM HYDROCHLORATE** is the name of a new antipyretic allied to phenacetin, and given in doses of seven to fifteen grains.

**A NEW ANTISEPTIC.**—At the Académie de Médecine, on April 28th, M. Polaillon read a paper contributed by Dr. Berlioz, of Grenoble, on a new antiseptic agent called "microcidine," which is composed of seventy-five per cent of naphtholate of sodium and twenty-five per cent. of naphthol and phenyl compounds. It is a white powder obtained by adding to fused  $\beta$ -naphthol half its weight of caustic soda, and allowing the mixture to cool. It is soluble in three parts of water, and the solution, which is cheap, is said to possess considerable antiseptic powers, without being toxic or caustic or injurious to instruments or linen. The antiseptic properties of microcidine, while inferior to those of corrosive sublimate or naphthol, surpass those of carbolic and boracic acids ten and twenty times, respectively. Microcidine is eliminated by the kidneys, and is antipyretic. M. Polaillon has experimented with this new agent largely in his wards as a dressing to recent and other wounds, utilizing as a dressing, after a preliminary cleansing of the raw surface with a three-per-cent solution, gauze soaked in the same and covered with a layer of oil silk and a thick pad of cotton-wool. The results are reported to have been excellent.—*Lancet*.

**CURE BY MIRACLE.**—The age of miracles was popularly supposed to have terminated some few centuries ago, but such is not the case, at least so far as St. Louis is concerned. The following is a brief report of one of the latest and best from that city: "For five years Sister Mary Philomena had suffered from an abscess that threatened permanent injury to the brain. Partial blindness resulted. On Tuesday, Sister Baptista visited the sick nun, and offered up a Novena in private prayer. She also gave her a relic. In a paroxysm of pain, Wednesday night, Sister Philomena swallowed the relic. When she awoke, she felt a strange pricking above her eye. Lifting her hand to the spot she felt a needle, which she grasped and pulled out, and, transfixed on its point, was the relic that the sister swallowed. The truth of the marvelous miracle," the account goes on to say, "is vouched for by Dr. Alt and the Mother-Superior." We confess ourselves

glad that the transfixing relic part of the story has been vouched for, else it were hard to credit. Should this fall under the eye of Dr. Alt, we sincerely hope he will send further details of the relic's progress from the stomach to the eye. That the needle should have effected its exit through the orbit is not so wonderful, since we are told that it is easier for a needle to pass through the eye than it is for a rich man. The probable interpretation of this being, that if a lady gets a rich man in her eye it is harder for him to escape than it would be for a needle similarly situated. Dr. Oliver W. Holmes' hypothesis of the total depravity of inanimate objects can alone account for the perversity of the needle in remaining in the lady's eye until it was furnished with a relic to transfix. Many instances have been placed on record of particles of glass passing through the eye, but investigation has almost always brought out the history of a man with an eye-glass or a man with a glass eye, as party of the first part, and a man with a fist, and possessing a knowledge of its use, as party of the second. Miracles are always interesting, and if Dr. Alt knows of other instances equal to the one related, it is to be hoped he will not withhold them.—*Medical Record*.

DR. DEWEY confesses (*Medical Record*) his conversion to antiseptis in the following neat manner:

"Pure obstinacy in face of facts,  
Of ignorance and folly smacks.  
Mortuous in this fleshly age  
Point to the statesman and the sage  
The parasite has got on top.  
Whatever system we adopt,  
To kill the germ is all the go.  
To stifle it in embryo.  
Inventions that last one decade  
Of very precious stuff are made.  
Water, the cheapest we can get,  
Has had no serious backset."

A FRENCH dispensing chemist points out that a mixture of bromide of sodium and hydrochlorate of cocaine results in the alkaloid being precipitated. It will be well to bear this in mind; for, with the cocaine merely suspended, a serious and, in an infant, even a fatal accident might easily result.

INFECTION FROM MILK.—In the *Glasgow Medical Journal* for October appears an account of an epidemic of erysipelas and sore throat, occurring among families supplied with milk from a certain farm. The most striking symptom was an intense inflammation of the fauces, resembling erysipelas of the mucous membrane, with swelling of the glands of the neck, and in some cases suppuration. In some, true erysipelas of the skin developed. The temperatures ranged from 102° to 105° during the first few days of an attack. Convalescence was attended by extreme prostration. No bacterial examination was made, but a clear connection was traced between the milk and the epidemic. *Journal American Medical Association*.

ALCOHOL AND DIGESTION.—From experiments made on himself by Dr. Eichenberg, some further knowledge of the effect of alcohol on digestion is obtained, which contrasts strongly with the teetotal lecturer's experiment showing how digestion in a glass vessel is retarded by alcohol. Dr. Eichenberg found that a small dose of strong alcohol (for example, brandy) shortens the time that food in general, whether animal or vegetable, or a mixture, remains in the stomach by more than half an hour. A similar but not quite so marked an effect is produced by a dose of diluted hydrochloric acid or mustard. Pepper and condango diminish the time the food remains in the stomach by about a quarter of an hour. Beer and an infusion of rhubarb had no effect.

THE REPUTED CAUSE OF INFLUENZA.—Dr. Tezzier, of Lyons, France, claims that influenza is produced by a microbe, which he styles the strepto bacillus whose habitat is putrid mud. That Russia is its home is, in his opinion, due to the fact that bad drainage, filthy streets, and neglected barnyards are the rule, a condition particularly aggravated by swollen rivers and generally wide plains.

AN AMAZING CHARITABLE EXPENDITURE.—According to the Secretary of the Charity Organization Society of New York, three hundred societies and agencies in that city spend \$4,000,000 annually in charitable work.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XI.  
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No. 13.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### THE PUBLIC AND THE MEDICAL PROFESSION—THEIR RECIPROCAL RELATIONS, DUTIES, AND RESPONSIBILITIES.\*

BY LYMAN BEECHER TODD, M. D.

Mr. President, former Presidents, Fellows of the Kentucky State Medical Society, Ladies and Gentlemen: Reciprocity, not diplomatic, is my subject—suggesting "Watchman, what of the night?" The time-honored and pleasurable custom, this annual reunion, bringing the intelligent, confiding, and generous public face to face with the medical profession, ever faithful to the trust, affords an occasion opportune and appropriate wherein to consider the mutual, the reciprocal relations existing between them: the expectations and demands of the public, the duties and the responsibilities of the medical profession, the benefits and blessings arising therefrom, that thereby we all may enjoy that unspeakable satisfaction which confidence secures.

My fellow citizens, the greetings of the Kentucky State Medical Society, your honorable guests this evening, I now tender to you; greetings warm and cordial because they are the priceless inheritance of memories cherished for a former generation, past and gone; memories which cluster around and cling to this city of Lexington, now honored by their presence.

For them, here and now, the golden gates of memory swing wide open, and looking back-

ward through the vista of a half-century they discern standing here a famed temple, the first and greatest medical luminary this side of the distant Alleghanies, bearing the euphonious name, Transylvania. Hither as pilgrims their fathers came to worship at its shrine, and they regarded those who ministered at those altars as very household gods; receding time, they declare, dims not, but rather adds luster to their honored names—Dudley, Brown, Caldwell, Nathan R. Smith, Bartlett, Yandell, Bush, and Peter. They grow not old with time; theirs are stars that never set. Occasions, my friends, beget memories, and memories prompt to noble deeds and heroic lives; and memorable occasions stand out as beacon lights along the coastline of our lives. And in future days when memory plays her part, one of her services will be this occasion, when, neither unmindful nor inappreciative of the honors which this Society has bestowed upon me, thrice in thirty years of standing before and speaking for it, I find myself this evening surrounded by friends and fellow-workers, zealous and studious, enthusiastic and successful in the several departments and specialties of our art, whom now I have the honor to represent and for whom I am authorized to speak, to positively express the faithful fulfillment of those expectations and demands of the public as well as of the progress of the medical profession, ever onward and upward, useful, brilliant, and enduring, worthy also of the gratitude and of the admiration of every age and of every race. Thus does this Society greet you, fellow citizens, and invites your calm consideration thereof, not by rhetorical figure and poetic imagery to delight your fancy, but rather to excite your interest and to increase your confidence by principles well established and clearly demonstrated facts, defying doubt and fearless of successful controver-

\*Address before the Kentucky State Medical Society, thirty-sixth annual meeting at Lexington, Ky., May 27, 1891.

sim. Still the question confronts us. Has the medical profession fulfilled the high expectation of a reasonable and enlightened public? This is the question of this evening, aye the problem of the age; it is asked by the thoughtful and anxious everywhere, and it is wrung from suffering humanity. Yes, my brothers, it accompanies you in your daily round of professional duty and hovers above your midnight lamp; it meets you at the threshold of the homes you enter; it is preached, this imperious question, from the pulpit, it is published by the press; it comes from the humble cottage in the lowlands, where lurks the deadly malaria; from the marble palace, where backs up and creeps in the fatal sewer-gas; from the miner's camp in the far-away snow-clad Sierras; yes, too, it comes from flying trains, that sweep across the plains, from floating fleets and navies and marching armies. The satisfactory reply comes without blare of trumpet, without waving banners; it is proclaimed in the triumphs and brilliant achievements of State medicine: Science for the State, in preserving the health of the citizen and in prevention of contagious and other diseases. Herein is a noble army of workers, miners, sappers, and engineers, armed not with field-glass and compass, with pick and spade, but rather with thermometer, test-tube, and microscope; ever over and around about them hover the wide-spread wings of their fairy goddess, Hygeia, propitious and cheering—requiring that homes shall be clean and well-ventilated, food unadulterated, ample light and air space in dwellings, water abundant and pure, dissipations avoided and vices shunned, mental and physical overstrain prevented; houses of correction for idle and vicious youths, regulation of hours of labor, protection of childhood from severe toil, over-crowding of school-rooms, compulsory asylums for the inebriate, drainage and sewerage, vigilant and industrious sanitary commissions, and above all, the regulation of the two giant evils of civilization—prostitution and intemperance.

Health is happiness, declares the physician; health is wealth, the citizen says; the common weal is the common wealth, cries the political economist and statesman. Thusever, and everywhere, side by side and hand in hand, move the

public and the medical profession: over the same royal highway they go; before both is the great avenue ever extending, ever widening, and ever brightening, to the public, of personal comfort, commercial prosperity, and national greatness and honor, and to the medical profession, study, research and experiment amid garnered stores of a glorious past, and present toil in unexplored mines where rich treasures lie, learning and living to bless mankind.

Although, as a writer observes, it is greatly to be regretted by the medical profession everywhere that epidemiological investigation and research have not received from the general government the substantial encouragement and fostering care so greatly desired and needed, and for which comprehensive and adequate bills have been prepared and presented, yet the reciprocal relations existing between the public and the medical profession and the mutual duties thereby existing will, I trust, in the near future, influence our representatives, thus obtaining the security from and prevention of epidemics; thus preserving the health of the State, securing personal comfort and happiness and national prosperity.

Here are potent and universal blessings, factors in the preservation and lengthening human life: Anesthetics subdue pain; vaccination, by the immortal Jenner a century ago, has stamped out that loathsome pestilence which has scourged many nations; scurvy has been annihilated, once the terror of the world's watery highways, and quarantine, which, as dykes of old Holland hold back the waves of an angry sea, imprisons the terrible plague, yellow fever. These are only some of the grand results, the rapid advances of scientific research and pathological investigation, with the co-operation of the public and the medical profession.

Preventive medicine. I insist, is the grand problem of the day, the question which you, as the representatives of the rising generation of physicians should urge, in season and out of season, on the attention of your fellow citizens; the question which, above all others and beyond all others, should engage your most sincere thoughts, and elicit with your fellow citizens your most earnest co-operation. When this great, this mighty object shall be attained,



when man shall be able to prevent disease and to reach with little or no suffering his three score and ten years, so graphically described by the Psalmist, then, but not till then, will this world be a paradise, with God Almighty, All-wise and All-merciful, in its midst, reflecting the glory and the majesty of his power and holding sweet communion in a thousand tongues with the human family."

The achievements of surgery, varied and useful, brilliant and successful, rendering the century memorable, I am sure, equal the expectations of an anxious public, and challenge and receive the admiration and gratitude of the age. Prominent herein is abdominal surgery. Hither are borne the honors and triumphs of three quarters of a century as a garland ever-green and enduring resting on the brow of the originator, the immortal Ephraim McDowell. For it was he who, in the lovely village of Danville, in the backwoods of Kentucky, performed the first operation of ovariectomy, which continues to bless the world. It secures for him the gratitude of all succeeding ages as a benefactor of the race, a name honored throughout the whole world and forever coupled with success. My friends, the majestic story of Ephraim McDowell's life will never grow old, whether preserved in the excellent and life-like portrait of him secured for us by our beloved Jackson, in the splendid memorial oration of Dr. S. D. Gross, whether sung in the beautiful lines of Dr. Oliver Wendell Holmes, or sounding in the door-knocker presentation, in the matchless eloquence of our lamented Cowling, or recorded in his own deeds, which have filled the world with fame, it will never, it can never grow old.

Upon the high, the historic plane where Ephraim McDowell stands, I now behold another figure, and together they will stand forever. No eye can overlook it; no historian omit, no student can forget it. It is Mrs. Crawford; and who is this Mrs. Crawford? this woman of fame, as she is destined forever to remain. She is no other than McDowell's first patient for ovariectomy. Let us draw near the scene, because it is a scene for pathos and heroism unparelled in the history of surgery, ancient or modern. Look at her, surrounded

by her loving family in her quiet home in Boyle county; think of her quietly and patiently bearing for long years a heavy burden, intolerable and fatal—so grievous was it to be borne that "in the morning she said, would God it were evening; and in the evening she cried, would God it were morning!"—for which the good family doctor, who seemed to cure everybody else, could give her neither relief for the present, nor promise her hope for the future. One bright May morning she heard that a young surgeon had come from far-away Europe and had opened an office in Danville. "I will arise and go to him," she said, "I can but perish if I go." In peaceful days of youth and bright womanhood how often had she passed along that country road, shaded by her loved forest trees—there the green grass and wild flowers bloomed beneath her feet—to her, now, that road was indeed *via dolorosa*. Soon she was face to face with the great surgeon, who was to become her greatest benefactor, and with whom her name is destined to become forever associated. Never was a more thorough, painstaking examination made, never a diagnosis more skillful or certain. With a firm hand and with a tender heart the surgeon held the prognostic scale, thoughtfully balancing her chances before her face, over which came and went, in quiet succession, hope and fear—that motley web of human life. Few were the questions that she asked, but what volumes they contain. Listen: "Doctor, did you ever perform the terrible operation which you propose for me?" "No." "Has it ever been performed by any one to whom rather I could go?" "Never, in the world." "Have you instruments made and especially adapted for this operation?" "I have not." "Have you trained and skilled nurses and assistants who quickly may aid you amid a thousand dangers which may arise?" "I have neither." "Have you a reasonable preventive, a safeguard against fever, which may perchance follow this operation and sweep my life away?" "No, indeed." "Have you any thing, that is known, to keep me perfectly still, or to dull the keen edge of your knife in my quivering flesh?" "There is nothing known that *can* do it." Oh, acme of human anxiety and suspense! She strug-

gled with her fears; her look was that of one seeing a vision.

The sequel the world knows by heart, and cherishes among its most precious and most valuable possessions the perfect success of that formidable operation which added many happy years to the life of Mrs. Crawford. Blessed art thou amongst women, and "wheresoever her name shall be mentioned in the whole world, there shall this also that this woman hath done be told for a memorial of her." Do you tell me that the eagle majestically and upward moves with his eye fixed upon the sun in his mid-day effulgence and splendor? Then do I declare to you that the earnest gaze which Mrs. Crawford placed upon the greatest living surgeon was a gaze of prophecy; for did not she, looking adown the vista of coming ages, discern that procession, interminable and ever coming from every race and from every clime; did she not also hear, as they returned relieved of a burden similar to her own, their shouts of joy and gladness, singing peans of praise to the morning star glory of abdominal surgery? I charge you, oh historian, thou proud chronicler of the true and the brave, to beware how you take the wreath of laurel from the brow of Mrs. Crawford to place it upon that of another. And long have I wondered that the women throughout the world, who had been relieved of the burden of body and sorrow of soul as she had been, have not ere this erected to the memory of Mrs. Crawford a monument more enduring and lofty than the regal heights of the pyramids; yea, better far, had not permanently endowed a sanitarium on each continent, where all like afflicted could come, without money and without price, and like her be relieved, whose walls should indeed of alabaster be, over whose ever-open doors and above whose altars, where inextinguishable fires should glow, would be inscribed, "*Esto perpetua*."

Abdominal surgery! as by talismanic touch, is opened the sacredly closed, long sealed book, *terra* (rather *viscera*) *incognita*, where the eye of science and knowledge guiding the hand of skill arrests disease, removes foreign bodies, repairs injuries, and saves life.

Let us all feel that it is a good thing and very cheering to us and very comforting to the

public to know that there are members of this Society who successfully have performed many operations in abdominal surgery, saving valuable lives, and who have made solid reputations which claim the unqualified and undisputed respect and praise of this association.

And should not the assurance of comfort and safety, inspiring and increasing the confidence of the public in the medical profession, like their twin-sister charity, begin at home? Then come with me to yonder quiet home at Woodland, where two loving cousins are playing, innocent and thoughtless of danger and harm; the accidental discharge of a pistol in the hand of one sends the too often fatal bullet into the abdomen of the other. Death seems imminent; horror pervades two households; the sorrow of impending death intermingles with the dread of a shadow ever darker than death itself to follow the lifetime of the little survivor. The skill of our surgeons prevented the one and averted the other, and restored to many anxious, distressed and loving ones "the features that joy used to wear." In a street fight in Guntown, a strong man received a bullet in his bowels. He was conveyed to St. Joseph's Hospital, where, in wards insufficiently lighted with coal-oil lamps, the death-bearing bullet is extracted and the injury repaired by a timely and skillful operation, and the man comes forth, to whom life is dear, rejoicing as one rescued from the grave.

Success and brilliant achievement in any new field of discovery have always been inviting, and, indeed, alluring to the industrious and scholarly investigators as well as to the ignorant, adventurous, and over-zealous enthusiasts. In this respect abdominal surgery is no exception. Even here, upon this ever-sacred ground, "fools rush in where angels fear to tread." For here—on account of the literature and labor being of comparatively recent date, unlike other departments of surgery, as dislocations and fractures and ligation of arteries—the conditions are not infallibly established, laws are not absolutely certain, the rules of procedure and subsequent treatment are not unalterably defined, the diagnosis and prognosis are yet enveloped in mists of uncertainty. I hear already notes and words of admonition



and warning, as alarm bells sounding in our ears from all parts of our land, pleading against too frequent, useless, and indiscriminate removal of certain organs of the female system. The solemn and moral aspect and consideration of the subject, as also questions and actions of a medico-legal nature will arise, which will embarrass the operator, impair his usefulness, diminish the confidence of the public, and bring reproach upon our profession; therefore, do I now and here emphasize the warning to the over-zealous, the over-enthusiastic, would-be laparotomists: Beware and forbear!

From homes and hearts throughout our land, from blighted homes and aching hearts comes the plaintive, the anxious question, and it is ever increasing, "Can you minister to the mind diseased?" Ever increasing, did I say! and why not! Amid the rushing activities, the severe competitions of our day, rendering it often difficult to make a living, and embittering the daily bread of life; amid booms, no less disastrous nor less fatal than the cyclone, hurrying on the venturesome and unsuspecting to disappointment, to financial embarrassment, and too often to shame; amid bromides, opium, chloral, and cocaine, which have now become domestic playthings, and hypnotism, now a fashionable parlor amusement, these, and excitements of gaming, the die cast in life's alluring, fascinating lotteries everywhere, which cause imperial reason to totter from her throne; can I ask, can the medical profession to-day stand guiltless; holding up clean hands before the public, which demands protection from these ensnaring and dangerous, indeed destructive environments, which destroy health, happiness, and prosperity, moral, mental, and material? I have, in a recent address which I had the honor to make before the Society, desired to show the disadvantages which impair the usefulness of our hospitals for the insane, by overcrowding and indiscriminate congregating in our large institutions for the insane, as well as many gratifying and comforting features recently introduced. I then thought and said, and now, in this distinguished, learned, and influential presence, repeat, that one of the greatest, if indeed not the chief advantage and

improvement which our hospitals for the insane could possibly enjoy, and by which the confidence of the public could be increased, would be the appointment of women superintendents of women departments in all hospitals for the insane, and that therein they should be perfectly and supremely independent, subordinate to no medical authority of the institution. Subsequent study, observation, and experience, gained by my connection for a term of years as a commissioner of one of the largest institutions of country, only confirm my opinion, and determine me here and now to repeat and to emphasize the importance of this enlightened and salutary movement. Well knowing, as we all do, woman's delicate sense and touch, her tender and sympathetic nature, I say that the day has entirely passed when it can be doubted that woman is capable of assuming and maintaining as high a rank in the medical profession as man. Of the importance of women physicians devoting their time, talent, and energy to the study and treatment of the insane, I can do no better nor wiser thing nor render you more important service than to use here the language of one of the wisest, most learned, and useful superintendents of insane institutions of this country. I refer to Dr. Andrew McFarland, Oak Lawn Retreat, at Jacksonville, Illinois. "In these days of advanced female education, the attainments of each sex being now the same, there is no further reason why male physicians alone should be placed in charge of female insane, but every argument for the reversal of the practice. The causes and motives for disordered action in the female mind are, in a great degree, a sealed book to one of the opposite sex. If this is confessedly so in health, it is infinitely more so when disease gives its array of suspicions, fears, and misconceptions which only the instinct and experience of one of the same sex can divine and properly meet. Every consideration of delicacy demands that the moral weaknesses displayed in a fit of insanity should be only to the eye of a kindred sex. It is well known that a dread of these exposures is one of the great hinderances to a resort to an asylum in the earlier stages of a disease which quickly becomes hopeless by neglect. The fact should be enforced, that

insanity is seldom curable except in its early stages, and any safeguard will be welcomed, removing this obstacle to prompt treatment in the beginning."

They who know me well will believe that I could permit no one to feel or express more sincere gratitude than I for that generation of noble men who have devoted their talent and given their lives to the care and cure of that great population who wander forth with gates of reason ajar, if not closed behind them. And I am now thinking of well-beloved Kinkbride, the learned and gifted McFarland, Gray, John R. Allen, W. S. Chipley, and other names worthy of mention with theirs, which grow only brighter by being brightly shone upon. Yet earnestly do I hope, and indeed believe, that the day is not far distant when women superintendents, with women assistants, shall preside over and minister unto, with authority independent of male superintendents, every female ward of every asylum for the insane over the broad domain from the North Star to the Southern Cross.

For a higher education, for the elevation of the standard of medical knowledge, the public demands and most reasonably expects more thorough primary preparation and satisfactory qualification on the part of the practitioners of medicine and surgery. The public views with suspicion and apprehension numbers of medical schools organized throughout the West in towns with insufficient population, where educational and clinical advantages for instruction and study necessary to qualify men for the duties and responsibilities of physicians could be neither reasonably expected nor received, whence with each returning spring shoals of new-fledged doctors issue, where they entered unprepared by primary or good English education, and whence they come unqualified either in ability, sagacity, or integrity, designing the profession as a trade—a reproach to the profession and ridicule of the public and the press. I have always advocated the enactment by each State of laws controlling the issuing of diplomas by medical colleges therein, which law should recognize only diplomas which have been conferred after a regular course of three years study, as a minimum—or, better still,

to emulate Harvard University, the ancient and honorable University of Pennsylvania, the Jefferson Medical College of Philadelphia, and other reliable head-lights of our noble science and art, and require a course of four years; yes, and even historic Mexico, which enforces a course of six years study. And it has been suggested, and I think with propriety, that a State law should prohibit the organization of a medical college in a city of less than seventy-five thousand population, and also to limit the number of colleges to one for every seventy-five thousand inhabitants. In such institutions the standing of the lecturers indicate a serious and worthy educational purpose behind this movement. A movement not to popularize knowledge by diluting it, but rather to afford direction, suggestion, and stimulus to all who have a sincere desire for further education. This movement, so auspiciously inaugurated, should receive the cordial support of the profession everywhere. Somewhere I have seen it observed, that within this present quarter century the medical profession, keeping step with the intellectual procession of the age, has advanced so rapidly that not every student has been able to become or to keep himself well informed of all that is now regarded as valuable in medicine or essential to a thorough medical education. And the application in practice of special knowledge acquired by persons limiting their studies to special fields of observation is gaining favor daily on every hand. Overcrowding and incompetency are the great and evil results from thus hurrying through such vast numbers annually from such schools, and believe me, my friends, the legitimate successors of Baron Larrey, Pasteur, Virchow, Sir James Y. Simpson, Mott, Meigs, Mussey, McDowell, Stone, W. O. Baldwin, and the Yandells will never come from schools of low fees and short terms. Formerly the great body of the profession consisted of general practitioners, but now, as soon as emerging from the college, the term "specialist" appears on the young doctor's card; when truly, in any specialty, no one can be expected to render useful service therein who has not for a term of years seen general practice as well as special, and who has not for as many more years availed



himself of the best advantages which can be offered in great medical centers, and thereby to place himself in scientific parity with those of other lands, and lend his best years and the greatest efforts of his mind, with general practitioners, to the service of his country and of humanity—I repeat, country and the cause of humanity.

Reciprocity, how suggestive!—the mere mention thereof moves before us the long and inspiring procession of the great and noble physicians whose patriotic and self-sacrificing, whose brilliant and useful life-work for country and humanity brighten and bless the century with their names and their deeds. The first among the greatest, immortal Rush of Independence-signing and days—I had almost said of Philadelphia, but rather of the world—for

“No pent-up Utica contracts your powers,  
But the whole boundless continent is yours.”

Monarchs and nobles, kings and princes have vied with each other and with courts and councils to do them honor, empires have poured their treasures at their feet. But yesterday died the noblest Roman of them all, J. Marion Sims.

“Dead he lay among his books,  
The love of God was in his looks.”

They who looked upon him ere they bore him to his final rest saw that quiet breast, which for half a century had throbbed for the good of humanity, covered with the jeweled insignia bestowed upon him by hands of a dozen kings, who thus would do him honor. You have seen physicians well beloved, my fellow citizens; you have known and you have loved them. In our homes they are when joy fills our hearts as well as when our hearts are breaking with unspeakable sorrow. When they pass from among us the people mourn for them as if they were of their very blood. When our Dudleys, Whitney, Chipley, Jas. M. Bush, John R. Desha, J. M. Bruce, Samuel M. Letcher, and David Bell went over to join the silent majority, did we not feel as if safeguards had been removed? And did not this whole community with every member of this association experience a sense of public loss and of personal sorrow when it was known that Dr. Sweeney was stricken with blindness—when

they that looked out of the windows were darkened, seeing neither the light of the sun nor the face of a friend—a dire affliction in the morning of life, quenching high hopes and ending a bright professional career of usefulness and success.

“He that is stricken blind can not forget  
The precious treasure of his eye-sight lost.”

And gladly do I avail myself of his earliest presence in our midst to reassure him of our regard and of our sympathy, and “hope that there may be opened to the inner eye of his soul unknown regions of beauty and delight beyond the sights which the eyes of the flesh have lost.”

The closing decade of the nineteenth century is pregnant with factors which are potent, and with problems which, although they are now difficult of solution, clearly foretell discoveries in medical science which will render historic and glorious the advent of the twentieth century. The present is already luminous with the hope and bright expectation of them: As to a star arising in the East, thither the eyes of all the nations now turn, for although the languages of the nations are many the language of science is but one. About nine years ago, a scientific investigator, Dr. Koch, of Germany, published an account of a new form of life, an organism called bacillus, which he had discovered and had described, and which he declared to be the cause of consumption. This is generally admitted to be the first grand advance in the study of this the most insatiate and relentless foe of mankind, which destroys one seventh of the human race. The hope of prevention and of the arrest of the disease after the victim has been attacked readily accounts for the widespread great interest and excitement, for the ardent and universal and unspeakable hope which attended this startling announcement. Sufficient time has not as yet elapsed to enable us to determine how far the beneficial result of Dr. Koch's discovered remedy, the lymph, will extend; but it is believed that in earliest stages of consumption by its use by injection further development may be prevented. It is therefore of the highest importance to use every means of scientific resource to make early diagnosis. But a lapse of five years has

brought us to a happy position, which prompts universal prayer and hope that prolonged and diligent clinical tests may secure for the lymph the therapeutic position as a gift of God.

An enthusiastic admirer of Dr. Koch, of our own country, who saw and heard him last summer at the International Medical Congress at Berlin writing of this most noted man of forty-seven years, who now stands at the head of scientific investigators of the medical world, said: "A tidal wave of science was imminent, and it centered on the discovery of Dr. Koch. Every delegate will remember so long as reason remains the scene when Dr. Koch stepped forward to read his 'Researches.' His deep-set eyes, so true and steady, his gentle, yet decided bearing, said plainly that he was giving us the truth as he found it, and scientists accepted it without question. When the greeting had subsided, it was most interesting to watch the lines and shadows of those listeners from the ends of Civilization, which quivered like the needle when the current is near. I have heard from forum and pulpit orations which have made my countrymen famous the world over, but this man who stood there giving to dying humanity a respite would have been made a god in the days of Greece."

I have long indulged the hope, as now I have expressed the belief, that communities everywhere have been benefited by being made better and happier by the medical profession, and now I congratulate my Fellows of the Kentucky State Medical Society that you have come to the kingdom at such a time as this. I hail you as participators in and contributors to the greatness and glory of this nineteenth century. A golden age of Christian liberty and civilization, of unprecedented scientific discovery and improvements, and national happiness and prosperity. An age which has added Browning, Tennyson, Longfellow, and Whittier to the world's poets; Carlisle, Emerson, Macaulay, and Motley to the world's essayists; Clay, Webster, Calhoun, Lincoln, and Gladstone to the world's statesmen; Spurgeon, the Breckinridges, McCosh, Henry Ward Beecher, and Philips Brooks to its prophets; and has given Pasteur, Virchow, Morrell McKenzie, Lawson Tait, Gross, D. Hayes Agnew, Mott, Sims, and Pepper to the world's physicians.

How beautiful, how impressive, and how instructive also was that imposing ceremonial in that ancient temple of Classic Greece, where annually assembled thrice three hundred surpliced priests who, bare-headed and unsandaled and on bended knees re-consecrated themselves, as there with solemn litany and gorgeous ritual they passed from hand to hand a flaming torch, an emblem of the inextinguishable and indestructible light of the Truth of God and of Love to Man. That torch would I, this evening, give to each of you, my Fellows of the Kentucky State Medical Society, and I would bid you bear it aloft, ever bright and ever more brightly burning, into earth's darkest places, giving light and hope unto all; and by it may you yourselves be lighted on your pathway to the Land of the Hereafter, whither we all are rapidly moving, where they "need no candle, neither light of the sun, for the Lord God giveth them light;" there sickness and sorrow are unknown, and the Great Physician is there.

LEXINGTON, KY.

## REPORT ON PROGRESS OF OBSTETRICS.

BY TURNER ANDERSON, M. D.

*Professor of Obstetrics and Diseases of Women and Children in the University of Louisville, Ky.*

In a survey of what has been done in obstetrics during the last twelve months, we find that measures for the prevention of puerperal fever lead the van, since whatever of substantial progress can be found must be put to the credit of antiseptic midwifery.

The medical mind of the day is more prolific of thought on the subject of antisepsis as applied to medical, surgical, and obstetrical practice than perhaps upon any and all other topics. These considerations, together with the conviction that the proper application of antiseptic measures in all cases will do more than any other thing to lessen the mortality of labor, have led me to choose this subject. The theme is not new, but there is good reason to fear that its importance will not be fully appreciated by this generation, and that in consequence of this want of appreciation, many mothers will con-

<sup>1</sup> Read at the May Meeting of the Kentucky State Medical Society, 1890.



tinue to be sacrificed annually upon the altar of ignorance and old fogysm.

That the death-rate in labor has been materially lessened in recent years can not be denied. To day parturition, as compared with parturition in former years, makes a fine showing on the side of safety. If we ask why, antiseptis is the answer; and it is a growing belief with the profession that the more fully the parturient woman is regarded in the light of a surgical subject, being treated accordingly, the safer will her delivery be. If, thirty or forty years ago, the question had been asked, What is the principal cause of death in labor? there would have been but one answer. Thus Prof. Henry Miller, the best authority in the days of our fathers, writes: "It should be engraven on the memory of every practitioner of midwifery in capital letters, that UTERINE HEMORRHAGE IN THE THIRD STAGE OF LABOR IS THE GREAT DESTROYER OF PARTURIENT WOMEN." And, writing in another decade, Playfair says that, "during the five years ending with 1876, three thousand five hundred and twenty-four women died in England from flooding." It can not be doubted that such strong statements had fair statistical warrant, and have resulted in the saving of many lives. It can not be denied that *post-partum* hemorrhage is always a great possible danger in any case of labor; but an appeal to the experience of the general practitioner of to-day will develop the fact that death from this cause is by no means common. It would be safe to say that no doctor within the sound of my voice has lost a case from this accident.

If the foregoing question were put to the obstetrician to-day, it is not too much to say that *septicemia* would be the answer. Lusk states that in the city of New York, during the nine years ending with 1875, deaths from all causes numbered 248,533. Of these, 3,342 were from diseases complicating pregnancy, child-bearing and the puerperal state. Of this latter number 58 per cent were due to septicemia; or, in round numbers about 1 in 100. These figures, taken without reference to epidemics of puerperal fever, show a mortality from this cause approximating one per cent. If the mortality due to epidemics of puerperal fever be taken into account, the figure will rise to five

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per cent or more. Such was the unfavorable showing before the days of antiseptic midwifery. Let us see how the matter stands to-day.

The Sloane Maternity Hospital in the city of New York recently completed its first one thousand deliveries, a voluminous report of which has been published. This report shows that one death only, out of the thousand women delivered, was from septicemia. This patient was admitted to the hospital while in the second stage of labor. She had been examined, and from symptoms and temperature was believed to be in a condition of sepsis before admission. It will not do to base a generalization upon one series of cases, but reports from other institutions are found to make like favorable showings, to wit: that since the introduction of antiseptic midwifery the mortality in hospital obstetric practice has become almost *nil*. To place obstetrics in general practice upon a like basis of safety is the great desideratum. That this can be accomplished, no scientific observer of the situation can doubt. The chief factor in the solution of this problem is the general recognition of the probability that auto-infection is a myth, and that puerperal septicemia is due to contamination from external sources. This doctrine is warmly supported by the investigations of such men as Schemmelweiss, Schroeder, Willis, Duncan, Van Sweeten and Denman, who in private and hospital practice have well-nigh demonstrated the truth of the doctrine. The researches of these and others have given great weight to the doctrine of external infection by proving that the *materies morbi* of puerperal sepsis may be carried to the lying-in woman from various sources, and that the disease is in no sense a specific fever. These facts being granted, the disease is certainly preventable, and the duty of the obstetrician in the premises is clear.

A review of the management of the one thousand cases reported at the Sloane Maternity is a safe guide to practice: "As soon as a patient is taken in labor, she is removed from the waiting ward to the delivery room, where a vaginal douche and a rectal enema are given early in the first stage. Physicians and nurses exercise the most scrupulous care in regard to

personal cleanliness. Before making a vaginal examination the hands are scrubbed and a nail brush used; they are then immersed in alcohol and afterward in a solution of bichloride, 1-2,000. Alboline, kept underneath a bichloride solution, is used as an emollient. No sponges are allowed in the hospital, they being replaced by absorbent cotton. No visitors are allowed in the wards. The patients and nurses wear only clothes that can be washed. The physicians wear sack coats of white duck. After labor is over, a vaginal douche of three pints of bichloride solution, 1-5,000, temperature 116, is given. After attention to the womb, etc., the patient is removed to the ward where she is to remain during the puerperium. The entrance to the genital canal is closed with an antiseptic pad twenty-eight inches long, eight inches wide, made of gauze filled with absorbent cotton. On the first day the pads are changed every four hours; on subsequent days, once in eight hours. The pads are made somewhat smaller as the lochia diminishes in quantity." Such antiseptic measures and precautions as these are reasonably simple, may be applied in private practice, and will prevent not only puerperal fever as a sequel of delivery, but even the third and fourth day febrile processes, commonly called milk fever, which there are good grounds for believing are nothing more than mild forms of septicemia. Moreover, it may be expected that lingering convalescences, due to subinvolution, pelvic cellulitis, etc., may be thus prevented, while epidemics of puerperal fever become a thing of the past. My own practice, extending over a period of more than a quarter of a century, bears abundant and unequivocal testimony to the utility of these measures. In the earlier years of my practice puerperal fever was the nightmare of my dreams and the bugbear of my daily work. A succession of four deaths from this cause as a result of one week's obstetrical work, drove me temporarily from my field of practice, and came well-nigh driving me out of the profession. The cause of my trouble at that time I did not suspect, nor was the remedy then at hand. It was not until years afterward that I learned from a study of antiseptic medicine that a phlegmonous erysipelatous arm was the source

of infection, and that proper measures of disinfection upon my part would probably have averted the calamity. Since applying the principles of antisepsis I have not encountered puerperal sepsis in any of its forms, nor have I seen any unfavorable symptoms to follow any of my gynecological operations traceable to infection. Besides, I have been relieved of the load of apprehension and anxiety inseparable from severe but unavoidable obstetric procedures. If I did not know that I do not stand alone in this experience, I should not have troubled you with this personal reminiscence, and my apology for it is a hope that it may stimulate or admonish those who have had like experience to find the remedy, as I have found it. Let no doctor enter upon the conduct of a case of labor unless he is so conditioned by his practice as not to be a carrier of infecting germs. Let him provide himself with proper disinfecting chemicals for use in all cases, not forgetting that a bottle of antiseptic bichloride tablets for use in solution upon his hands; as a wash for the vulva prior to delivery; for the preparation of cloths for application to the vulva during the puerperium, and for the disinfection of any and all instruments used, is the most essential item in his obstetrical armamentarium. Let him further see that, as far as lies in his power, his patient is guarded and protected from articles of clothing which might be a source of infection. Old comforts, which perhaps have done service on previous occasions, should be replaced by clean bedding, and, lastly, let him see that nurses and other attendants are properly disinfected, so as not to undo his work.

In conclusion, may I not express the hope that the principles of antiseptic surgery, in the era of which we now live, may be adopted in obstetrics alike by city and country practitioners, so that septicemia may not be in the future, as it has been in the past, the great destroyer of parturient women?

—BREVILLE—

THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS will be held at Washington, September 22-25, 1891. William Pepper, M. D., is Chairman of the Executive Committee.



## REPORT ON SURGERY.\*

BY AP MORGAN VANCE, M.D.

In this latter half of the nineteenth century, which is the most progressive the world has ever known, surgery has certainly kept pace with every thing else in its onward strides. In the last decade this progress has been so rapid that it is hard for those not in the whirl of the larger cities to keep up with the advance.

In this short paper I do not wish to give you a rehash of what Mr. So-and-so has done in London, or what Meinherr So-and-so has performed in Vienna, or what Drs. So-and-so have accomplished in New York or Philadelphia; but I desire to say a few words in regard to surgeons and their work—some observations which are suggested by the daily life of one engaged in surgical practice.

In behalf of surgical progress I wish in the beginning to enter a plea for a better understanding between the surgeon and the general practitioner. The family physician, as a rule, first sees a surgical patient, and usually introduces the surgeon into the case. The manner of this introduction is of the greatest importance.

The people have not kept apace with surgical progress, and they still retain many horrors of the man who wields the knife that are relics of the anti-anesthesia period, and it is difficult to make them consider otherwise than with dread the proposition, as the ordinary people express it, to call in a "surgical doctor." How is the prejudice to be overcome save through the influence of the general practitioner? I am sorry to say it is often otherwise. Every day are met examples like this: A physician will call a surgeon, and among other arrangements will be the suggestion not to bring a large case of instruments for fear the family will be shocked; or the statement that the mother does not know that an operation is to be done, but thinks only an examination is to be made. All this has been arranged by the physician before seeing the surgeon.

One never knows what may be needed, and the surgeon who is to assume the responsibility

should certainly give the necessary directions as to what is required and what may be expected. The sooner the people become accustomed to surgical paraphernalia the better. This pandering to the sentimental feeling of the people on the part of the profession simply tends to keep up the idea among the laity that surgeons have no feeling, that all human sympathy has been drilled out of them, that they would rather see blood than to eat, and that they care nothing about killing people. This calls forth such expressions as "The butcher," "How brutal!" "Will you have to use the knife?" "I will die before I will submit to the knife," and they do die often for the lack of a proper knowledge of the surgeon and his ways. Still they will allow a physician to apply a caustic to a cancer of the lip or breast, accompanied by untold suffering in comparison to the better, cleaner, and painless removal by the knife. They should know that surgery is conservative, that it is humane, and that procrastination is often fatal. How often are we introduced into a case when it is too late to do any good, when, if the patient had understood better the necessity of the operation, a limb or even a life might have been saved! I speak feelingly on this subject, because proof of the harm produced by ignorance on the part of the people of surgical matters is met with daily in a surgeon's work, and the illustration of the fact mentioned above, that those not working in surgery often fail to keep acquainted with its possibilities. Else we would not meet cases of ovarian tumor of five or six years' standing with no other treatment than monthly dosing with morphine to relieve the dysmenorrhea, or with a case of complete rupture of the perineum with its sequelæ, advised by the family doctor not to think of having it repaired until she stopped having children, the damage having been done at the birth of her first child.

On the other hand, how hard is it for a surgeon to change a good prognosis given by the physician into a grave one, which, in justice to the patient and himself, he is often compelled to do! Making light of operation is often productive of trouble. For example, when a baby is born with club-feet, saying,

\*Read at the May meeting of the Kentucky State Medical Society, 1891.

"You can cure that in a few weeks with a little adhesive plaster," or to the mother of a child with harelip or cleft palate, "Don't worry about that; a stitch or two will make that all right." After two or three failures and the criticisms of the parents, one will be careful before promising results in these conditions. How hard it is on some surgical friend to whom they may kindly have referred the case, if he foolishly operates on their prognosis, and failure should follow!

Another experience to which the surgeon is subjected is the habit some physicians have of calling a surgeon to operate at the first visit made on their diagnosis or prognosis. This is very embarrassing at times, especially if he can not agree in either diagnosis or prognosis.

Another is to call a surgical friend to do an operation or set a fracture, then never allowing him to see the patient again. If, however, a bad result follows, the surgeon's aid is necessary to explain it away.

These little matters would not seem to require any comment, but when one or the other is met every day the injustice is more apparent. The effect is to hamper surgical progress and the legitimate education of the people in matters surgical that it is needful they should know for their own good.

Another plea I wish to enter in behalf of surgical progress is for the more discriminate use of opium in surgical cases, the disregard of which I consider one of the greatest evils of the day. It is not uncommon for grave conditions to be masked by the too early use of the hypodermic syringe, by the destruction of reflexes and the covering up of important symptoms, the early recognition of which is necessary to save life. I can recall a number of instances of this kind, the best reason given being that "something had to be done, and I injected  $\frac{3}{4}$  gr. of morphine." I remember one case in particular: A man was stabbed in several places, one wound being over the lower border of the liver. I saw him half an hour after a neighboring physician had arrived. I was puzzled at the symptoms presented, when I bethought myself to ask the doctor what he had done, when he said he had injected  $\frac{1}{2}$  gr. of morphine when he arrived. This explained

the stupor and peculiar actions of the patient. Another instance was in the case of a tanner who had two ribs broken. Fourteen hours after the accident I took charge of his case, the two physicians first called retiring. I found the man suffering apparently with obstruction of the bowels. The history was, that from his occupation he was of a constipated habit, and had been very much so before the injury was received; that in the twelve hours since he had taken hypodermically and by the mouth 3 and  $\frac{1}{2}$  gr. of morphia and  $\frac{1}{3}$  gr. of atropia. The great distension of the abdomen caused mechanical interference with the broken ribs and intense pain. I was unable by persistent efforts to move this man's bowels under a week. It seemed at one time as if I never would succeed. I have seen the same condition many times follow abdominal operations where opium had been too largely used. In these cases it is often dangerous, to say nothing of the great distress to which the patient is subjected. My experience is that the surgeon can get along with very much less opium than can the physician in a given number of patients.

To the introduction of antiseptics is due, more than any thing else, the present perfection in wound management. An imperfect knowledge of the technique and a misunderstanding of the power of antiseptic agents is accountable for nearly all the failures. My experience teaches me that many men think that all that is needed is to have the solution of carbolic acid, corrosive sublimate, or what not in abundance, without much regard to the vessels which contain them, or much heed to the strength, usually deciding this by guess. I was surprised indeed when a teacher of surgery reported recently the daily irrigation of the abdominal cavity with a 1 to 500 sublimate solution, and he seemed equally astonished at my answer to his question as to what strength I was in the habit of using, which was, that as yet I had never had the temerity to use any within the peritoneum.

Few recognize the fact that antiseptic agents are used to render doubly sure our efforts at asepsis. Every detail of perfect cleanliness should be observed, then use the appropriate antiseptics according to the individual case.



But never use 1 to 500 sublimate solution in the peritoneal cavity, or, as I saw a surgeon sometime since, make the solution in ordinary painted buckets which were left exposed for two days prior to being used at a major operation.

The application of antiseptic principles in wound treatment has been so simplified over what it was a few years since that no man is excusable in doing surgery without understanding and practicing it. There are still some surgeons, however, who are teaching a disregard of these precautions, and who are still talking about "bugs" and giving other evidences of the greatest ignorance of the progress which has been made in this department of surgery. I think it is the duty of all conscientious surgeons to refuse to participate in such an operation or to permit such surgeons to be present to contaminate clean antiseptic work. I think this much we are in duty bound to do for the sake of humanity and the progress of good surgery.

Since the advent of the aseptic treatment of wounds the question of the necessity for drainage has arisen. Can we dispense with this safeguard? Are there not other reasons for drainage besides the assurance of asepsis? These problems are now being discussed in the surgical world. The use of a good and sufficient outlet for the natural secretions of a wound is still a necessity, in my opinion, as much to insure rest and coaptation as to guard against the decomposition of these discharges, which would otherwise be confined without this vent. Small wounds will often do well without drainage; but, as a rule, wounds of any extent will be retarded in their healing if we completely close them. An exception may be made in abdominal wounds, but here the same rule holds good, the extent of the freshened surface regulating the necessity for the tube. Again, in other wounds we have not the alimentary canal by which to obtain efficient drainage.

Surgeons are still looking for an ideal operation for the radical cure of hernia. This problem has puzzled surgical minds since the earliest times, and I fear will continue to do so for some time to come. There are advocates enthusiastic on each of the recognized operations,

but none of them can produce cases sufficiently long after the operation in sufficient numbers to prove the propriety of the patient's discontinuing some form of support, however light this may be. Until we find some procedure so perfect that we can say to the patient, "Your hernia is radically cured, and surely will never reappear," we should not call the operation radical, but, better, palliative. The danger of relapse is only avoided by the use of efficient support.

The subject of anesthesia is interesting to every one working in surgery, and can in several ways effect progress. You will find advocates of ether and advocates of chloroform and advocates of the A. C. E. mixture. Now I can assure you that all and any of them are bad enough to make most surgeons breathe easily only when they hear the patient speak after the operation is done. I confess I am afraid of the anesthetic, and my feelings of security are just in proportion to my confidence in the man who is in charge of this part of the operation. Except in special cases where there is plain indication for one or the other anesthetic, I think the choice ought to be decided by the personal experience of the man who is to administer it. If I had to choose between an experienced chloroformer and an experienced etherizer, I would prefer the latter in all cases where no special indications were present.

This is an important subject, and I hope it will be discussed by the members of the Society.

LOUISVILLE.

#### **PSEUDO-MEMBRANOUS LARYNGITIS TREATED BY MERCURIAL FUMIGATION.\***

BY A. J. LIEBER, M. D.

Thinking that the above subject would interest the Fellows, especially our country brethren whose operating cases and intubating instruments are not always at hand, I have concluded to write upon it.

For this advance in therapeutics we are all indebted to Dr. J. Corbin, of Brooklyn, N. Y., who, in 1881, read a paper on this subject before the Kings County Medical Society.

\* Read at May Meeting of Kentucky State Medical Society 1891.

On March 30, 1890, I was called to see George H., three years old. On examination I found diphtheritic membrane on both tonsils. The disease ran a mild course for five days, when there was evident extension to the larynx. One forty eighth of a grain of bichloride of mercury was given every three hours, and the oleate of mercury freely used by inunction. The vapors from slaking lime were faithfully used. Under this treatment the disease rapidly advanced, and twenty-four hours later it seemed to me that a fatal termination could not be long deferred. I then approached the father and told him that the only chance left was to perform tracheotomy or intubation. I could not do the latter operation, as I had no instruments to do it with, but if he was willing I said I would call in help and perform tracheotomy. He positively declined any operation. I was about to leave the house, and was warming my feet, for I had a good long ride of seven miles before me, when I recalled Dr. Corbin's suggestions and acted upon them at once.

The child was placed in an improvised tent, and thirty grains of calomel were burned under it every half hour for six hours, I having ordered it repeated as often as the character of respiration became alarming. The next morning the patient was decidedly better, and the intervals of fumigation were extended to three hours. The following night it was used twice; the next day once, and was not required after that; a good recovery followed.

Although the method of using mercurial fumigation is simple, it has been misused, and for that reason I venture to give a description recently given by Dr. Law, of Brooklyn. The apparatus consists of a tent and an alcohol lamp with arms to support a piece of sheet-iron. A good tent may be quickly constructed in the following manner: Each post of the child's crib is extended by fastening to it in an upright position a bed slat; the frame is completed by cross pieces above; sheets to cover the frame complete the tent. The child is placed in the crib at one end, the lamp is lighted, the sheet-iron plate is adjusted and heated, and thirty grains of calomel are dropped upon it. The lamp is then placed under cover at the end not occupied by the

child; the vapor quickly rises and fills the tent. The usual time of each treatment is ten minutes, but may be varied if circumstances indicate. The attendants should be cautioned not to inhale the fumes unnecessarily, as mercurial poisoning is quite certain to result. In the patient, however, this effect does not follow. The temperature and humidity of the room should be the same as with any other treatment in the same disease. It is well to have the use of two rooms, reserving one to be used only while the treatment is in progress, and thoroughly airing it after using.

The prompt relief of stenosis I suppose to be due, partly at least, to the relaxation caused by the treatment, just as we see relief follow an emetic in membranous croup, even if no membrane is expelled. The cure is due, doubtless, both to the local and to the constitutional action of the drug.

HENRICK, KY.

## REPORT ON VITAL AND MORTUARY STATISTICS OF KENTUCKY.\*

BY F. E. GREENLEY, M. D.

At our last meeting I had the honor to be appointed a committee to report on the Vital and Mortuary Statistics of the State, and knowing we possessed none of our own, I congratulated myself with the idea that I could again, as I did two years ago, have recourse to the U. S. census report. But in this I am unhappy to say I have been greatly disappointed.

I wrote to Dr. J. S. Billings, U. S. A., who is supervisor of population statistics, in order to get a statement necessary for my object, and received the following reply:

DEAR DOCTOR: Yours of April 15th is at hand. The records of deaths, etc., obtained in the last census have been copied on cards for convenience of compilation and this work is now nearly completed.

The compilation, however, has not yet been commenced and the results will not be ready for issue in less than nine months from the present time.

The records for Kentucky, as well as for all the States which do not embrace a system of registration of vital statistics, will be very incomplete and unsatisfactory, except as regards two or three cities where such a registration is kept.

Nature has yet been published as regards the birth and death rate and it is probable that those will

\*Read at the May meeting of the Kentucky State Medical Society.



first appear in the compendium of the census, which will be published next winter.

Regretting that I am unable to furnish you the information which you request,

I remain, yours very sincerely,

J. S. BILLINGS,

WASHINGTON, D. C., April 13, '91.

Surgeon U. S. A.

As it regards the status of our State pertaining to vital statistics, we stand in an unfortunate, not to say discreditable, attitude. A Kentuckian, when abroad, is able to make a favorable comparison with any other State in the Union as it respects success in the various avocations of life, in physical and mental endowments, and in the quality and quantity of the products of her soil, but if asked in regard to her birth- and death-rate a blush will be seen mantling his countenance. In this particular he stands abashed, and is unable to render any reasonable excuse for our delinquency. And can we wonder at the blush of shame suffusing our faces when we take a retrospective view of the renown of our profession in the past? Can we help calling to mind the names of McDowell, Brashear, Dudley, McCreary, Drake, Jackson, Yandell, and many others who stood high on the roll of fame in the days of our past history? Shall we stand idly by and have it said that our profession is deteriorating while all other professions, arts, and sciences are in the line of advance and keeping pace with the foremost?

We can not but think and believe that the profession of Kentucky to-day is as proud, honorable, and proficient as their compeers in any State, but by neglect have allowed the law respecting vital statistics, somewhat imperfect in its provisions, to become inoperative and, you might say obsolete, through mere thoughtless desuetude.

The question now arises, shall we allow such a state of things in this particular to continue? I think, on a fair consideration of the matter, every doctor in Kentucky will answer in the negative. Then let us be up and doing, and as one man put our shoulders to the wheel and relax not our efforts until we stand on a plane equally effective and honorable as that of any of our sister States.

Learning that our close neighbor, Indiana, has a very good and efficient registration law, I visited New Albany to examine the statutes in

this particular. In my estimation, the law of our sister State embraces about all the essential details of an efficient and practicable law on the subject.

I here give all of said law, in a condensed form, that seems to be requisite to our object:

1. The law compels every physician and midwife to register at his county seat. This is in accordance with our law, except it does not include midwives.

2. Each physician and midwife so registered is furnished blanks, and must make monthly returns of each birth, giving the name of the child, the number of the child of its mother, sex, color, date of birth, place of birth, born alive or dead, legitimate, or illegitimate; natural labor or difficult labor, with its cause, means of relief; mother's maiden name, mother's age, her residence and place of birth; father's name, age, occupation, and birth-place.

3. Each physician shall make return of each death occurring in his practice, giving the name of deceased, age, sex, color, residence, single or married, widow or widower, cause of death, occupation, birth-place, place of death, duration of disease, complication, duration of complication, date of death, father's name and birth-place, mother's maiden name and birth-place.

4. It is obligatory for each physician to make return to the proper health officer immediately on recognizing any case of smallpox, cholera, scarlet fever, typhoid fever, diphtheria, cerebrospinal meningitis, or measles; for failing to do which he is liable to a fine of \$5 to \$10 for neglect. The same penalty is attached for failing to return births and deaths.

As it pertains to health boards the Indiana law is somewhat similar to ours. Each county has its health board and secretary, being auxiliary to the State Board. In making returns of births and deaths, etc., the physicians of each county send them to the secretary of the county board, and he forwards them to the secretary of the State Board. These returns are tabulated and embraced in the annual publication of the transactions of the board.

It is obligatory upon the physicians of each county to make their returns monthly to the secretary of the county health board, and he

makes his returns quarterly to the secretary of the State Board.

Now my object in getting a synopsis of the Indiana law pertaining to vital statistics is to make a comparison with our law, and if any thing it contains may seem to be more practicable or desirable than ours, let us adopt it.

On account of our unpleasant attitude as it respects vital statistics, I would respectfully ask our president, with the concurrence of this Society, to appoint a committee whose duty it shall be to prepare suitable measures by which we will be enabled to have published annually a correct showing of our vital and mortuary statistics. Let it also be the duty of this committee to present their measures before our next legislature in order that they may be acted on early in its session.

I am inclined to hope there will be no objection on the part of any physician in this broad commonwealth to making a report of his births and deaths to the proper authorities.

We should all be actuated by a desire to keep abreast with the most advanced States in what pertains to our honor and dignity as a profession, and not let the consideration of a little gratuitous work prevent us in doing what devolves upon us in upholding our good standing in an honorable and progressive profession.

WEST P. S. KY.

## Societies.

### KENTUCKY STATE MEDICAL SOCIETY.

The thirty-sixth annual meeting of this Society was held in Lexington, May 27, 28, and 29, 1891, George W. Beeler, M.D., of Clinton, President, in the chair. After the usual formalities of the opening session, the scientific proceedings began with the Report on Obstetrics, by Dr. Turner Anderson, of Louisville. (See page 392.)

#### DISCUSSION.

Dr. L. S. McMurtry, Louisville: I think the Society is under obligations to Dr. Anderson for presenting his paper, particularly for presenting his method of antiseptics in midwifery practice. I very frequently talk on this sub-

ject with my professional friends engaged in a large practice and who do a great deal of obstetrical work, and they say this: That is all very well indeed, but it can not be done in a great many cases.

It has always seemed to me that human life is so valuable and so precious and the matter of antiseptic technique in midwifery practice so simple that it can and ought to be done anywhere. It is safer now days for a woman to be confined in a hospital than in private practice.

A few years since it was a common thing to hear of the lying in wards of hospitals, private maternities, etc., closed on account of the prevalence of puerperal fever, and hospitals were regarded as not the proper place for women to be confined in. Now the situation is entirely reversed, and a well-regulated, systematic hospital, where asepsis and the antiseptic technique are applied is a safer place in which to confine a woman than any room in private practice. It is much safer for a woman to be confined in the Preston Retreat, of Philadelphia, than in many of the fine houses of our American cities, because the antiseptic technique is applied. And I am glad that Dr. Anderson took occasion to explain the details of this technique. We know frequently that the practitioner is apt to have the idea that a little bichloride solution is all that is necessary to render the parts thoroughly aseptic, whereas asepsis is a thing to be gained by the aid of antiseptics with thorough cleanliness to start with. The surgeon needs to get his ends out of the way; he should use a nail-brush before he applies the antiseptic solution. When a woman is to be confined the oldest and least valuable article of bedding in the house is sometimes put under her, so that when it is ruined by the discharges it will not be much of a loss. I believe the physician, when he is expected to take care of a woman in labor, before the time comes should call at the house just as though he were going to perform a surgical operation, and give specific rules and instructions, preparing the patient for labor. Then when she is to go into labor the nurses are instructed and the antiseptic technique so simplified that labor is conducted easily and the woman is protected throughout. It is simple, and if carried out,



puerperal fever will be banished from private practice just as it is from hospital practice.

Dr. John A. Larrabee, Louisville: I do not believe that there is any paper that has been read or will be read which will result in greater benefit to the medical profession than the one to which we have just listened. At the time when asepsis and antisepsis were beginning to assume their proper proportions, our city hospital was closed on account of puerperal sepsis. I think that was something like ten years ago. Patients were confined and died out of doors as well as in-doors. A safer building was selected in a remote part of the city, and deaths occurred there. When I took charge of the obstetrical department there I commenced the system of complete cleanliness and isolated from the outside persons during the period of accouchment, using at that time chloral hydrate instead of corrosive sublimate for a solution, requiring and insisting upon all the attendance and care which the author of the paper laid down, and the exclusion of every thing possible to contaminate the patient. The resident physician was careful in carrying the rules out. It was our experience there that one hundred and eight women from all parts of the State, from the alleys and lanes, brought in in all kinds of conditions, were delivered in that institution, from the time I took charge of it until it closed, without a single death. I simply add this statement in corroboration of the remarks made by Dr. McMurtry.

Dr. Arch. Dixon, Henderson: I was glad to hear Dr. Anderson make one point, and that is, a puerperal woman should be regarded in the same light as a "wounded woman," and that we should treat her as such. Gentlemen who practice obstetrics should take into consideration that point.

A point which Dr. Anderson did not touch upon in his paper is irrigation of the vagina and vulva before labor. By doing this we often if not always prevent ophthalmia neonatorum in the child. There is no question about this fact. The old bugbear that light made the child's eyes sore has gone out of date. By washing out the vagina and vulva before labor the child will not have sore eyes.

I do not believe in the theory of auto-infection.

I do not believe any woman infects herself. Infection comes from without.

The point made in regard to nurses is an important one. A physician may have his patient in the very best condition, and the nurse comes along with a dirty finger and sticks it in, and if it infects the patient the physician gets the blame for it. When I have carefully prepared my patient for labor I tell the nurse, in the presence of a member of the family, that if the woman has septicemia or puerperal fever it is her fault, and not mine. I take precautions to prevent it. The average nurse we get in the country is entirely different from one you get in a hospital. We have to pick up sometimes an ignorant woman who has not the slightest idea of cleanliness. I do not believe any woman infects herself. I think, if we prevent infection from without we can stamp out puerperal fever.

Dr. C. Skinner, Louisville: I simply rise to say that I am not only in thorough accord with every thing that has been said, but I will go farther, and say that it has been my practice in a few instances after delivery of the child to apply the douche twice a day, using bichloride of mercury, if for nothing more than to make the patient rest more comfortably. It is disagreeable to a patient to have the lochial discharges continuing a week or ten days when they can be diminished by the use of bichloride. I think it is the habit of most practitioners here, who do work of this kind, to visit the patient before labor comes on, as was advised by a previous speaker.

A Member: I was well pleased with the paper, and the doctor has treated the subject in a masterly way. There is one point I have always insisted upon, and that is the preparation of the lying-in bed. I insist upon the point that every bed-tick should be protected beneath the sheet with an oilcloth, because if any of the lochial discharges escapes from the dressing and soils the sheet it naturally will go on and soil the bed-tick also. It is an easy matter to change the sheet and the bedding generally, but it is not so easy to change the bed-tick.

Dr. Turner Anderson, Louisville: I fully appreciate the complimentary remarks made on my paper.

With reference to the prevention of ophthalmia neonatorum I am satisfied that the point made by Dr. Dixon is a good one; I did not enter into that subject as fully as I might have done. I think there is another source of this condition which is frequently overlooked, and that is the habit of some nurses to wrap the child in old shawls or woolen garments, conveying irritative or infective material to the eyes in this manner. In some cases I am satisfied that ophthalmia neonatorum is due to particles of dirt from woolen garments wrapped around the head of the child soon after birth. Of recent years I have been in the habit of having silk handkerchiefs or something of this kind wrapped about the head of the child, and since I have adopted that practice I have seen fewer cases of ophthalmia neonatorum.

Dr. L. S. McMurtry, of Louisville, read the Report on Abdominal Surgery. (See page 353.)

#### DISCUSSION.

Dr. C. Skinner, Louisville: I have listened to Dr. McMurtry's paper with a good deal of pleasure, and I fully agree with him in all that he has said, particularly in his remarks on peritonitis and its cause. I want to say a few words in regard to the intra uterine application, and then make a few remarks with reference to replacement of displaced uteri. I think, just as the doctor has stated, there is no treatment that is so universally employed as intra-uterine applications, and they certainly have their place, but I think this treatment has been carried so far as to clearly demonstrate its misuse in a great many instances. So many things can be carried into the inflamed uterine cavity and then into the tubes intimately connected therewith, and suction is often carried on, and many practitioners in the beginning of the treatment may get along very well, but some ovarian change takes place, fever runs up, pelvic pain takes place, and the treatment is continued until peritonitis develops. This is the history of a great many cases, and a specialist is finally called to do an operation.

Replacement of the uterus is another thing that has been misused. I think the introduction of the sound or the use of repositories are unsurgical and unscientific in a great many

cases. I think, to put a mechanical appliance into the cavity of the uterus and attempt to replace the organ by forcing it in position is unsurgical. The organ should be replaced without any kind of intra-uterine application, the manipulation being done on the outside of the organ, and by patience, time, and perseverance it can be replaced and more or less fixed in the cavity of the uterus, and no harm will result. As has been stated in the paper, too much stress can not be put on the fact that some things should not be attempted. Trachelorrhaphy is sometimes done on the lacerated cervix when there is some intercurrent trouble, particularly of the tubes, the inflammation being above the uterus, and no relief follows.

Dr. J. F. Purdom, Mitchellsburg: I only wish to add my commendation to the paper read by Dr. McMurtry. It is an important one for the general practitioner.

As regards the remarks made by Dr. Skinner in reference to the reposition of the displaced uterus and the use of the sound, it occurs to me that the sound is an instrument that should be very seldom used, and only used to measure the depth of the organ. I hardly think any gentleman here would dare to replace a displaced uterus with an instrument introduced into the organ, for if it has been displaced for any considerable length of time there is certainly some form of adhesions existing, and the physician would not be able to disrupt them without doing damage to the endometrium.

The introduction of a sound in order to determine the position of the uterus seems to be entirely out of place. It is a question of great importance to the general practitioner, as so many of the cases operated on by the laparotomist come from the hands of the general practitioner. The trouble commences while the case is under his care. He is responsible more or less for not having made a careful and accurate diagnosis, and for not resorting to the correct treatment. I certainly believe that the curette has a place in the hands of the general practitioner. It can not be done away with. I believe the conditions requiring the use of the curette are well defined and may be perfectly understood by the general practitioner of medicine, and the judicious use of the same is perfectly safe, while its



injudicious use would be dangerous. Furthermore, I believe that the intra-uterine application of remedies is perfectly safe when properly used, and I think the conditions we see demand it. It seems to me that if the general practitioner were more carefully trained and better informed on medical literature he would send fewer of his cases to the laparotomist.

Dr. W. H. Wathen, Louisville: I am pleased with the character of the report that Dr. McMurtry has seen fit to make to this Society, because it presents to us practical questions that are so much more valuable than a simple narration, as is fashionable at the present time, of a long series of cases. This is a very broad question, and one that the general practitioner is just as much interested in as the gentlemen who do special work, particularly those of us who are engaged largely in abdominal and pelvic work, because there are two questions involved that make it practical: (1) The diagnosis of pelvic diseases, and (2) the danger of inflicting injury to the peritoneum by a lack of ability to make a diagnosis, or by a lack of knowledge as to the precautions necessary in order to prevent carrying septic infection into the peritoneal cavity.

Unfortunately the two greatest failures with the general practitioner are, (1) that he does not pay enough attention to pelvic manipulation, and (2) he very often mistakes a pelvic or peritoneal trouble for a uterine trouble, and his treatment is based on that error. He does things that instead of relieving his patient intensify the trouble with which she is suffering.

Now, just here lies another error in regard to the danger of minor-pelvic surgery and intra-uterine manipulation. The uterine sound properly introduced into the uterus, if there is no pelvic inflammation or pelvic adhesion or tubal trouble, will never cause pelvic peritonitis, unless the person using it neglects cleanliness and carries, because of carelessness, septic matter upon his sound into the uterine cavity, otherwise he will never cause peritonitis. And you, gentlemen, have all of you observed the great carelessness with which many men use the uterine sound. If there be no trouble whatever, if the adnexa are in a healthy condition, and the speculum is introduced and

cervix exposed, the vagina thoroughly cleansed and made aseptic by wiping away all discharge—and if you see fit use a bichloride solution—if the sound is thoroughly septic there will be little or no danger of septic peritonitis resulting. If you neglect antiseptic precautions in the use of the sound, your patient is in danger of having a pelvic peritonitis. Furthermore, if you use a sound in the uterine cavity that is clean, or the vagina is clean, and if there is pelvic peritonitis, you may rekindle the trouble and possibly have further extensive involvement of the peritoneum and pus cavities forming.

In regard to rapid dilatation of the cervix, it is practically devoid of pelvic involvement if you do the operation aseptically, and if there be no pelvic inflammation preceding it. So if we, as members of the medical profession, will study these questions more thoroughly, we will have fewer difficulties arising on account of minor pelvic surgery and intra-uterine applications.

It is not difficult to diagnose our cases if we study them properly, but the difficulty we all have to contend with and which has never been solved is, what is the exact character of the pelvic condition with which we have to deal? I thought, several years ago, that I could diagnose correctly any form of pelvic inflammation or pelvic exudate, and I have found after entering the abdominal cavity that the complications were very extensive and the operation a difficult one. Again, when I opened the abdomen expecting to deal with a difficult condition, I have found the conditions simple. No one can state with positiveness, when there are pelvic adhesions, that there is pelvic peritonitis; but we know enough to avoid unnecessary manipulation and to refer the patient to some surgeon who is competent to do an operation if we do not feel that we can do it ourselves. There is undoubtedly too much pelvic surgery done, and we have all done it. There is pelvic surgery done for reflex disturbances; there are operations done for small cystic ovary or a small cyst that could have been punctured and the liquid discharged, and the patient would probably have recovered from all the symptoms. The tubes and ovaries are removed, and the

woman recovers from the immediate effects of the operation, and it is heralded to the world as a triumph in pelvic surgery; but watch that patient, as I have seen them, twelve months or two years afterward, deprived of these organs, the important organs that characterize her as a woman, organs that enabled her to reproduce gone. What return has she? She has nothing but a worse form of invalidism, with the humiliation that her sisters point to her as a woman who has neither ovaries nor tubes.

Good pelvic work is one of the greatest triumphs in modern surgery; bad pelvic work is one of the stigmas upon surgery.

I am going to make a statement now that may seem paradoxical to you, nevertheless I am forced to the conclusion from a constant study and observation as a result of the use of antiseptics, viz., that antiseptics have no place upon any thing that goes into the peritoneal cavity. I do not deny that we may use antiseptics in the preparation of various things we use, but never upon any thing that goes into the peritoneal cavity, not even the hands. If you dip your hand into a solution of bichloride of mercury and the peritoneum is not inflamed, possibly months afterward, if you re-open that abdomen you will find peritoneal bands binding the intestines together, bringing about a worse condition than the patient suffered with before the operation was done.

Dr. J. G. Carpenter, Stanford: I am thoroughly convinced in my own mind, from what I have seen, that a man who knows how to practice gynecology as it should be done, does not want the uterine sound, and the man who uses it should never practice gynecology. It is a dangerous instrument, inasmuch as it brings on ovaritis, parametritis, salpingitis, etc.; and if the students of medical colleges were taught to disregard it, there would be fewer deaths and fewer patients for the abdominal surgeon.

Dr. J. N. McCormack, Bowling Green: After having had some experience in abdominal surgery, I have arrived at the conclusion that the general surgeon ought not, where it can be avoided, to do these operations. I am of the opinion that not only should the general surgeon do these operations with reluctance,

but also that the operation is done too frequently by the specialist. From my own experience and observation a good deal of the abdominal surgery done in my section of the country by specialists has resulted fatally. We hear a good deal about results, but nothing concerning the funerals that follow the operations, and therefore I say that reports which deal in glittering generalities before our societies are misunderstood by us plain country people.

I believe the operation for appendicitis is much abused. I have had some personal experience with the disease, and I rise chiefly to report a case related to me by a physician in Cincinnati a few years ago, who had an attack of appendicitis at the same time that Dr. Agnew had the disease and was operated upon. Both were sick of the disease, and both were attended by the same surgeon. When the surgeons arrived at the hotel where the man was staying for the purpose of doing an operation, after consultation they decided he was too far gone, that he had passed beyond the hope which an operation would afford, that it would give no relief. He was not operated upon, and recovered. Dr. Agnew, whose case was not so far advanced, and was believed to be a hopeful one, was operated on, and died.

After considerable experience in abdominal surgery and observation of the work of others, I rise to enter my protest against, what I believe to be growing up rapidly, an abuse of the operation. I would like for those gentlemen when they come before us with these cases to give the percentage of recoveries and deaths.

I was at one time *intern* of a hospital and such cases came under my observation as well as that of other physicians. We saw the glitter of the knife, the spurt of blood, and a funeral afterward.

I am afraid we plain members of the Society hear too little of that side of the question. I am very much interested in the very excellent paper that Dr. McMurtry has read, but it seems to me that comparatively important details are being omitted.

Dr. E. R. Palmer, Louisville: I think Dr. McCormack must have many sympathizers, judging from the applause which his remarks



have elicited, and that a large number here are aware of the great danger attending the opening of the abdominal cavity. Those who have seen the work of Dr. McMurtry have little conception of the pains necessary, of the many phases of work that must be carried out in order to make true the statement of thorough antiseptic precautions. I have seen operation after operation performed, and I tell you in very few instances have I seen absolute antiseptic precautions carried out with success in such work. I have never seen but two men operate—perhaps three—who followed what seemed to me the ideal antiseptic method, and they were Bull, Gerster, and Wyeth, of New York City. It looks tiresome to us to see the pains and care that these men exercise in their work. They have no trouble at all. I saw Wylie open the abdominal cavity in a case of cancer for diagnosis and to relieve tension, with the statement that the patient would live considerably longer after having the cavity opened than if it had not been done. If absolute antiseptics is exercised, the danger is almost *nil* so far as sepsis is concerned. Whenever you have trouble, you may rest assured that it is something else than the operation—some fault in the method will account for the trouble that subsequently results. We need not be afraid to open any thing, including the skull, if absolute asepsis is secured.

Dr. J. M. Mathews, Louisville: I agree with the author of the paper in the points he has brought out; but it appears to me that a slight reflection has been cast upon the profession of Kentucky; and while I agree with the last speaker that the distinguished gentlemen in New York deserve great praise and credit for their work, I must say that I have seen as fine and brilliant operations done by six or seven distinguished gentlemen in Louisville and Lexington—operations done by men who as thoroughly understand antiseptic surgery as any men in the city of New York. I am inclined to think that they are capable of doing as good surgical work in the abdomen as any men in the East.

While the carrying out of antiseptics does look tiresome, it is not hard to understand. Anybody in a country town or village or city

can surely understand what absolute cleanliness, or what asepsis, if you please, means. Therefore I simply recall the fact that we are in Kentucky, and I believe in Kentucky, and in the ability of its surgeons to do this special work.

Dr. A. M. Cartledge, Louisville: I did not hear the whole of the paper. I simply rise to speak with reference to the remarks made by Dr. McCormack. I make a plea in favor of the general surgeon regarding the question of laparotomy and abdominal surgery. He spoke of the specialists doing abdominal surgery. I have tried very hard to harmonize these claims and charges with the conditions as they exist, and have not been able to do it, by admitting the existence of one or two conditions that do not exist. If what the gentleman said is true, it would be necessary that we only invade the abdominal cavity for such conditions as ovarian cystoma, extra-uterine pregnancy, ectopic pregnancy, and some of the more chronic pelvic troubles, which can be sent to the specialist in a city, or if we have abundant time the specialist can be called to the case. We all know that ovarian cystomas and some other conditions constitute a small percentage of the cases which demand laparotomy. We know that the abdomen is now invaded in many instances for gunshot wounds and appendicitis and for other conditions, and yet must the general practitioner let a patient die from the fact that there is no specialist at hand to operate? I wish to say that if the general surgeon is ready to operate in cases of emergency and necessity, he should also be able to do operations for ovarian cystoma, extra-uterine pregnancy, etc. The technique and detail required in an operation for gunshot wounds of the abdominal cavity are far greater than the technique in the operation of supra-vaginal hysterectomy. We can not get all these patients to a city. It takes a great deal of territory to support the abdominal surgeon. He can not exist in a population of less than 50,000 people, and consequently in a great many cases we must depend upon the general surgeon to do this work. I have nothing to say in derogation of the specialist. There is ample room for him. If the general surgeon is taught, and

knows thorough asepsis and antisepsis as well as the great principles of surgery, there is no reason on the face of the earth why he can not do this work well.

Dr. L. S. McMurry, of Louisville, closing the discussion, said: I desire to say a few words, particularly with reference to the remarks of Dr. McCormack. It is well known that Dr. McCormack has done good work in abdominal surgery. Indeed, his work includes one of the first and most remarkable successful cases of intestinal resection done in this country, and that too, before the researches of Semm. The remarks he has just made are very misleading, and coming from such a source are calculated to do a great deal of harm. I desire to challenge his statement that abdominal and pelvic operations are very simple, and that "anybody can do them." Such a statement, I repeat, is very misleading. As one's knowledge of pelvic and abdominal surgery increases with experience, he will be convinced that simple cases are exceptional, and the work most trying in difficulties and complications. Moreover, to protect the patient from the great and ever imminent peril of sepsis requires a vigilance and rigid surveillance of self, assistants, and nurses, which is laborious and exacting to a degree required in no other branch of surgery. To do these operations with any thing like uniform success requires, as stated in my paper, an apprenticeship and constant attention to details. Unless such an apprenticeship has been served, the first cases will be marked by a shocking mortality. Hence to say that abdominal section is simple, and that "anybody can do it," is misleading, and is capable of doing harm when emanating from such a competent surgeon as Dr. McCormack.

I do not propose to dissent from Dr. McCormack's statement that too much operating is being done. I asserted as much in my paper, adding that one of the greatest improvements of recent months in this new field of surgery consists in more careful selection of cases and more discrimination in diagnosis.

Dr. McCormack has cited against abdominal surgery two cases of appendicitis: one was operated on and died, the other was not operated upon and recovered. This general state-

ment can prove nothing. A gentleman of this city called upon me at the hotel this morning upon whom I operated last September. The appendix had undergone spontaneous amputation, and was washed out with from four to six ounces of foul pus from the right iliac fossa. He was in an extreme condition when the operation was done, and I am sure would have died in a few days without it. I merely mention it to offset such an argument as has been made against operative treatment. One or two cases prove nothing, and such argument, I again repeat, is misleading. Here in Kentucky and the South, as a rule, operation is not recommended by the practitioner and accepted by the patient and family until it is evident that the patient is moribund. This is no test of the value of any operation, as operations on the dying are seldom successful. As shown by Dr. Vance yesterday in his admirable report on surgery (see p. 335), what is most needed now is to teach the laity that surgery is a conservative method of treatment, and not a dangerous resource only to be called in at the last moment when disaster and death are at hand.

I wish to commend and indorse the very instructive and practical criticism of Dr. Palmer. He said we are constantly hearing the expression, "thorough antiseptic precautions were observed," when as a matter of fact the popular professional idea is that this consists in a few drops of carbolic acid and sublimate solution here and there, with dirt everywhere. To constantly observe and live up to a thorough aseptic technique, made aseptic by cleanliness and sterilization, requires labor and vigilance which few appreciate who have not practiced it. It is not easy.

Dr. T. B. Greenley, of West Point, read the Report on Vital Statistics. (See p. 338.)

#### DISCUSSION

Dr. J. N. McCormack, Bowling Green: The majority of the members knew that I am, as Secretary of the State Board of Health, Superintendent of Vital Statistics in the State. It has been my fortune to look into the subject which has been so well and interestingly written about by Dr. Greenley. I am heartily in sympathy with what he says. I hope the So-



ciety will devise some means by which new legislation can be had on the subject. Our present legislation is worse than useless. The State Board thought it unwise to publish the few returns that came in, because they were misleading. In making this statement I want to say that I have given some attention to the laws in operation in the various States, and I do not believe the law of Indiana, from which Dr. Greenley quotes, is any great improvement upon our present law. Any legal enactment which requires physicians to report births and deaths will not be observed. I say this after years of experience. In one year we have adopted the plan successfully followed by the United States Census Bureau. We published a small pamphlet, sent it in a stamped envelop, addressed back to the State Board of Health, to every physician in the State whose name and address we could secure. I kept these statistics, and yet so few were returned that they were absolutely valueless. It appears to me, in order to have success in securing legislation, we must go into the matter carefully and ask the legislature for such enactments as will give us successful results. Nothing will be successful until a system of burial statistics is required and a burial permit has been issued by some officer of the county. I have given a great deal of attention to this subject, and in almost every instance the plan suggested by Dr. Greenley, of having physicians make voluntary returns with penalty attached, has been a failure.

Dr. L. S. Letcher, Henderson: This is a matter of importance, and I therefore move that a committee of three be appointed to take the matter into consideration and report at the next meeting.

Motion seconded and carried.

The President appointed on this committee Drs. Greenley, McCormack, and Todd.

[TO BE CONTINUED.]

## THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, March 31, 1891, Dr. T. P. Satterwhite, President, in the chair.

Dr. Wm. Cheatham exhibited a sample bottle of cantharidin, and read an abstract of translation appearing in the Cincinnati Lancet-Clinic, describing the effects of same, as follows:

These observations showed that cantharadin, when injected experimentally, does not produce the inflammatory conditions which one expects to find, but that a peculiar process is developed in the capillaries followed by the exudation of serum. This is the characteristic action of cantharidin. If now cantharidin is given in such small doses that it has no deleterious effects on the normal lung or kidneys, but attacks diseased or inflamed capillaries wherever these may be, an exudation of serum takes place. This exudation must not be underrated. Buchner, Stern, and others have beautifully demonstrated that the serum has anti-bacterial properties, and we may therefore suppose that the exudation around diseased and irritated capillaries possesses disinfectant properties.

Many substances were tried to hold the cantharadin in solution for subcutaneous injection, and at last it was accurately determined how much caustic potash (alkali) was necessary to dissolve the cantharidin. A clear solution, with a slight alkaline taste, even in the strength of two deci-milligram cantharidin to a cubic decimeter, is the result. The first experiments were made with the co-operation of Profs. Ewald and Gumlich, with very small doses, 1-50 milligrams. These doses were increased until at length a maximum dose of six deci-milligrams were made. This is the largest dose that can be injected subcutaneously with safety. The usual dose for therapeutical purposes lies between these two extremes, and is from one to two deci-milligrams. The remedy was now given into the hands of Prof. Fraenkel, Drs. Heyman and Landgraf, especially to be tested in cases of laryngeal affections. The results are briefly stated later. Liebreich, in closing his article, remarks that it is far from being a specific for tuberculosis, as its action may be of benefit in other diseases as well. In using the remedy he especially cautions to watch its ef-

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INVESTIGATING GHOSTS.—The French Society of Physiological Psychology has appointed a committee to investigate the possibility of hearing the voices and seeing the counterfeit presentments of persons known to be far away at the time.

fects on the kidneys and never to use it where the kidneys are affected. The initial dose must not exceed one deci-milligram, and may be gradually increased to two deci-milligrams. It is not necessary to give injections daily, but a day at least should intervene between the injections.

At the same meeting Dr. Heyman gave the results of the treatment of twenty-seven elastic patients with cantharidin; ten patients were under treatment so short a time that they were left out of consideration; of the seventeen remaining cases, eleven were cases of extensive tubercular changes in the larynx of the worst type, while six were cases of chronic laryngitis. All patients were treated at an out-patient department, and followed their usual mode of living in every way. Local inflammatory signs at the site of the injection occurred but once; abscesses never developed. The injection was given, whenever practicable, between the two shoulder blades.

In the eleven cases of tubercular disease of the larynx most extensive alterations had already taken place. The voice was affected in all cases, either hoarse, or, as in most cases, completely aphonic; the general condition was poor. Generally after three, or at most four injections the general condition of the patients became better, their appearance brighter. At the same time a remarkable improvement in the voice took place. This gradually increased to clear up, so that in some cases there was scarcely any perceptible hoarseness after a while.

The character and number of bacilli did not seem to change. The change in the lungs was also marked; moist râles disappearing, the dullness decreasing somewhat, and the cough becoming less and less, the expectoration more thin and watery. In four cases the cough ceased entirely. In most cases night sweats diminished or ceased altogether. In one case with hectic fever, the fever disappeared entirely after the fourth injection. Laryngoscopically, the cases showed first a decrease in the redness of the larynx, soon the infiltration of the tissues became less and less, granulations became paler and more flattened. A number of ulcers healed completely, while others are fast approaching their state. The edematous swell-

ing of the arytenoid cartilages was lessened in all cases. The healing processes go on gradually and insensibly in the same way that we are accustomed to see syphilitic affections disappear by the use of the iodide of potash.

In the six cases of chronic laryngitis, one case refused to respond to treatment; in the second case the catarrhal ulcers healed completely after the tenth injection. In three cases marked decrease of redness and swelling could be seen, and improvement was marked. A detailed history of all cases follows.

Prof. B. Fraenkel then followed with the demonstration of cases. Three weeks ago he was requested by Prof. Liebreich to try the cantharidin on cases of laryngeal phthisis. Some difficulty was experienced in selecting cases, as most of the lighter forms under observation were being treated at the time with Koch's fluid. It was therefore necessary to take more advanced cases of laryngeal tuberculosis that had not been subjected to the Koch treatment.

CASE 1. Male, thirty-seven years old, cough for seven years, hoarse since Easter, 1889. Very emaciated; night-sweats. He had been treated locally at Polyclinic since December, 1890. At the time the cantharidin injections were begun he had been aphonic for four weeks; extensive ulcerations present on both vocal processes, extending to the false and true vocal cord on the left side, bounded behind by a granulating swelling over the whole posterior laryngeal wall. After the second injection the swelling became less, the granulations smaller. After the third injection the voice came back, the cough became less and much looser, and deglutition was no longer painful. At the present time the ulcerations on the one side have completely healed.

CASE 2. Male, thirty-eight years old; cough for two years; painful deglutition since December, 1890. Has been completely aphonic for four weeks. Epiglottis swollen and ulcerated; vocal chords swollen and edematous; marked tubercular changes. After the third injection aphonia disappeared entirely and deglutition was no longer painful.

CASE 3. Female, thirty-eight years; aphonic. Intense pain in deglutition; only liquids can be



swallowed, even these not without great pain. Marked stridulous respiration; edematous condition of epiglottis; extensive ulcerations of both vocal cords, as also the subglottis region. At present stridulous breathing completely gone; no pain in deglutition; the patient eats potatoes and other solid food without trouble. Local improvement marked.

CASE 4. Male, forty-five years. Edema of epiglottis, aryteno-epiglottic fold; ulceration of larynx; juxtaposition of the vocal cords, with stenosis of the larynx. The condition greatly improved and the swelling greatly decreased. To-day an injection of one deci-milligram was given and a serous exudation has taken place in the larynx, seemingly in conformity with the theory of Prof. Liebreich. The patient coughs continually a fluid greatly resembling saliva. His general condition is not so good. The injections have produced strangury.

CASE 5. Male, fifty-five years. Case of ulceration of the right vocal cord. This ulcer has completely healed after a few injections, the hoarseness disappeared, and the cough became much less. The patient of his own accord says he is completely cured and entirely well.

After the injections strangury is frequent, tenesmus and hematuria less often complained of. Fraenkel found that the bacilli tuberculosis in cases that were treated with cantharidin would not stain so rapidly as before, and some would not stain at all. It is necessary to let them remain in the staining fluid at least twenty-four hours. Fraenkel also found a decrease in the number of bacilli after the injections with cantharidin.

#### DISCUSSION.

Dr. J. A. Ouchterlony: I have had no practical experience with the cantharidinate of potash. I was impressed in reading the article with the feasibility of trying it, and through the enterprise and skill of Mr. J. A. Flexner I have been provided with a solution of cantharidinate of potash, and expect to use it at the earliest opportunity. I shall certainly report to the Society whatever the results may be. There is one sentence in the article read I wish to call attention to, and that is one which he emphasizes especially, viz., that it is not a spe-

cific for tuberculosis, as it may also be useful in other diseases. I can not see why its being useful in other diseases prevents its being a specific in tuberculosis.

Dr. F. Leber: What is the dose?

Dr. W. Cheatham: From one to two tenths of a milligram. It is something anybody can get. It does not degenerate by keeping. No reaction follows its use. It is inexpensive.

Dr. T. P. Satterwhite: While on this subject, Dr. Ouchterlony, will you favor us with a report in regard to a case you reported several meetings since?

Dr. J. A. Ouchterlony: The case reported some time since as treated by Dr. Torstensen's subcutaneous method has not turned out satisfactorily. The patient, after a while, began to go down again, and to show the usual symptoms of advancing tuberculosis of the lungs. Fever arose every evening, respiration became more difficult, pulse rose in frequency, and cough became troublesome; moist râles developed where none had previously existed, and in addition thereto laryngeal symptoms set in. The condition of the patient was sufficiently urgent to demand the care of a specialist, so I referred him to Dr. Cheatham. In the course of a couple of weeks he was put on the Koch treatment, and I am happy to say he has improved very nicely. He now receives four milligrams of the Koch lymph every two days. His other symptoms are gone, fever has gone down, and he is doing well. The cases on which we are trying the Koch lymph in my clinic at the University have not been numerous. There are three under treatment at the present time, and they are all doing remarkably well.

Dr. T. P. Satterwhite: In the case you exhibited, in using the lymph was there much reaction?

Dr. J. A. Ouchterlony: At first very slight. In my clinic at the University I have treated a number of cases, and it was not until the dose was increased to 3 and 4 milligrams that any reaction took place, and then not excessive.

Dr. T. P. Satterwhite read a note on The Nature of Personality Illustrated by the Lives of Twins.

Twins represent in the average of births 1 in 70, triplets 1 in 5,000, and quadruplets 1 in

150,000. Twins are of two species. Either each of them is germinated from a distinct ovule, in which case they may be either of the same or of a different sex; or they may have issued from two germinative spots in the same ovule, and then they are enveloped within the same membrane and are invariably of the same sex. The latter instance alone yields two personalities that are strictly speaking twins. The paper went on and stated that the resemblance of twins was a matter of common observation, and further showed that there are other resemblances, that is, in tastes, appetites, and faculties, and even of fates.

Dr. P. Guntermann: I have one case to report, the first of the kind I have ever seen. It was the case of a baby which died at the age of three days. When I saw it, it was two days and eight hours old. Its abdomen was very large and distended. I was told that it had neither passed water nor had the bowels moved since the time of its birth. The midwife had tried to administer injections, but failed. I introduced my finger into the bowel, which passed readily for an inch and a quarter when it met an obstruction. I then introduced a small bougie and tried to find an opening, but found none there. The parents opposed any surgical exploration. That was the first case of the kind I have ever seen. I have heard one case spoken of by Dr. Mathews. The child died when about three days old, six or eight hours after I had seen it.

Dr. T. P. Satterwhite: Was there any *post-mortem*?

Dr. Guntermann: There was none.

Dr. Ap M. Vance (by invitation): Some time since I operated in a case of imperforate anus, the child being three days old. The head of a pin could not have been passed through the opening. I made an incision with a tenotome. A great deal of fecal matter passed through the opening. I then introduced a conical glass drainage tube and divulsed the anus, and so drained the bowel. The child was also large, as the one Dr. Guntermann describes. It is the only case in my experience.

Dr. J. M. Mathews: Am glad Dr. Guntermann reported this case for several reasons. In all the works on diseases of the rectum and

books on general surgery there is just one thing advocated in the class of cases that Dr. Guntermann reports, and that is colotomy. Dr. Guntermann did not do it, and he gave two excellent reasons for not doing so. In my report before the International Medical Congress in Washington I stated my objections to colotomy. This case was evidently not atresia of the rectum, but malformation of the rectum itself. It could only have been saved by colotomy, but Dr. Guntermann says the parents could not think of surgical procedure. I do not think it would be right to perform the disgusting operation of colotomy upon an infant, and allow the child to pass through life in that condition. I fully indorse what he did under the circumstances of the case.

Dr. J. M. Mathews: I will report three cases which have been under my care since the last meeting of the Society.

A short while since Dr. Palmer referred a young man to me suffering with diarrhea, which he could not control by ordinary treatment, and suspected rectal disease. Examining with a long speculum, I found three or four inches of the rectum entirely free from any disease, but beginning about four inches above the sphincter muscle was an extensive ulcerated surface. It was very red, very sensitive, and bled to touch of my instrument. I instituted local treatment by means of the rectal tube, and after the third application the diarrhea ceased, and there has been no return of it.

Following upon that closely, Dr. P. of Jeffersonville, brought me for examination a young man whose appearance was decidedly phthisical. The patient had suffered from diarrhea for four or five years, sometimes having as many as ten actions a day. Upon examination I found in this man the ulceration began at the sphincter muscle and extended three or four inches and then ceased, just the reverse of the other. He was put under the same treatment, which soon afforded relief.

Three days ago I was asked by Dr. Scott to examine a young married woman suffering with diarrhea, which had existed for a year, he remarking at the time it was the only case of diarrhea he had not been able to control by medication. I examined the rectum; found,



beginning at the entrance and extending to the sigmoid flexure, inflammation of the mucous membrane, and the whole of it studded with what I took to be tubercle. The lady's mother died of phthisis, as well as her only brother, and although she has no cough she is of that appearance, and I believe this will go on to tubercular degeneration of the bowel unless it is stopped. I have only seen her once, so will only make this brief report and reserve a more complete report for a future meeting.

Dr. Vance, at Dr. Mathews' suggestion, reported a case he had seen in consultation with Dr. Mathews.

It was a case of inguinal tumor. The man had been wearing a truss, which was a very rude instrument. Arising one morning he found a tumor about the size of a partridge egg, possibly a little larger. The cord seemed to go right into the base of it and come out on top of it. It was hematocele, due to over trussing. I fitted him a truss, which caused him no pain, and rather think the tumor will be absorbed.

L. S. M'MURTRY, M. D.;  
*Secretary.*

## Abstracts and Selections.

WHEN IS ANTISEPSIS A FAILURE?—Outside of a comparatively small circle of surgeons there are heard from time to time suggestions, which occasionally appear in print, that the system of "Listerism," so-called, is a failure. Strange as it may seem it is not very uncommon to hear some one say that in a given case "every antiseptic precaution" was adopted, but the result was bad. The speaker would have you believe that he had done his part and that the system was at fault.

Now, it is worth while to consider briefly where the difficulty lies; and without entering the discussion of asepsis as opposed to antiseptis—absence of dirt versus sterilization of dirt—without advocating special methods or dressings, attention may be drawn to practical difficulties which lead to misunderstanding.

A few men, like Mr. Tait, vigorously attack the theory of Listerism, while they themselves carry out the principles underlying its success. The reputation of Mr. Tait, however, rests upon his operative work, and not upon his opinions or his explanations. When in characteristic style he says (*British Medical Journal*, September 27,

1890, p. 728): . . . . "The tone and attitude adopted by Sir Joseph Lister at Berlin clearly show that the whole sad business is on its last legs," etc. Also (p. 729): "I venture to say that before the present generation has run out the word 'antiseptic' will be all that is left to represent this strange structure." The harm that he can do is not great among the men who are doing the best work in surgery, especially in general surgery. These can not work for a day without discovering for themselves that their results are better or worse, according to their greater or less microscopic and chemical cleanliness in operating. Active surgeons do not care how Mr. Tait explains his good results. He might refuse to believe in the law of gravitation if he choose, but as long as he did not violate it, as long as he refrained from walking out of windows or off precipices, his opinion as to the law would make little difference. Most men care little that he denies the evil potency of germs and relies upon removing decomposable material from his wounds. They remember that he deals with a peculiar membrane and its neighborhood, that he is extremely clean in his work, and they will permit him to attack Sir Joseph Lister personally, and his impregnable principles to his heart's content; principles of the widest practical application. The harm Mr. Tait can do is to unsettle the mind of the man who is beginning his work; and, worse than that, his writings tend to salve the conscience of those who have had no training in genuine aseptic methods, who fail consequently to fully carry them out, and who joyfully hail any champion who even seems to justify their indifference.

But even among the better trained class of men does not one often see a lamentable failure to grasp the essential ideas of surgical cleanliness?

There are hundreds of men to-day who apparently persuade themselves that mopping a 1 to 20 carbolic acid, or a 1 to 2,000 bichloride of mercury solution about a wound area constitutes using "every antiseptic precaution," as the phrase goes. There are also men who will use chemicals upon a septic patient but neglect to change infected bedding. There are men who will go to an operation with the points of their scissors, the locks and serrations of their hemostatic forceps, the eyes of their needles, choked with dried blood or worse material from the last operation. They never boil an instrument. Their conscience is satisfied with the carbolic acid in the instrument pan. Some men wash their hands before an operation no better than before dinner. When an instrument or a sponge drops to the floor they may rapidly rinse it in the pan and use it at once.

There are other men who have trained nurses, sterilized dressings, and boiled instruments, but who, after they have washed for the operation, shake hands with a spectator, put a hand in a pocket, remove instruments from an old blood-stained case, help carry a table, handle dusty bottles, or use a handkerchief, and yet say they use every antiseptic precaution. Many men know better. What is lacking is careful self-training and what may be called an aseptic conscience. What is wanted is a realizing sense of the real difficulty in getting things clean and then keeping them so. Carbolic acid solutions as practical sterilizers are a delusion and a snare. They work slowly at best. Unless too strong for comfortable or safe handling they do little good, and they do enormous harm by quieting the conscience of the man who ought to spend more time cleaning his hands; yet how many times to we see them relied upon when they only cover dirt. Many text books, even the revised editions of standard works, are written from a carbolic acid standpoint. Antisepsis is a failure when it is superficial.

In a recent case of laparotomy, referred to by the author's permission, the stitches cut out and the wound opened, though it afterward united by granulation. The operator had been cleanly, but the fault was traced to a nurse who had handled the previously sterilized silk with infected fingers. In another case the paraphernalia were elaborate and the preparations minute. The chief assistant seized a falling ether bottle, old and very dirty, and without the slightest effort to cleanse the hand again it was soon in the abdominal cavity. The patient died two days later of peritonitis, which may have been a coincidence.

A few days ago, in a hospital, a major operation was in progress. The lecturer had dilated upon the beauties of the antiseptic methods. The catgut ligatures proving defective, he called for silk. There was a scurrying of nurses and an ancient open box of silk was brought. A spectator with unwashed hands threw a card of silk into the instrument pan, from which a piece was taken when scarcely wet and placed on one of the largest arteries in the body. A weak link breaks a strong chain.

In a hospital case of my own, requiring careful dissection about the face, an assistant, unknown to the operator, obtained an instrument which had been used a few minutes before in opening a suppurating bubo. In two days the wound area was an abscess under under sterilized dressings.

Not long ago, in an emergency, the writer asked at a drug store for antiseptic gauze. The druggist instantly opened a beautifully

decorated and labeled tin box, unrolled quite a quantity of gauze for his inspection. He was of course told that while that night have been antiseptic gauze since it was rolled as such by his handling, a proposition which failed completely to enter his mind. No doubt that identical roll of gauze will be retailed; and the writer fears that there are physicians who would buy it measured by the yard on his counter, and yet hardly realize that it was worthless as a clean dressing or packing. But why multiply instances to show that "antisepsis," when neutralized by some single mistake, is a failure. Which should be blamed, the system or the application?

The war about asepsis as opposed to antisepsis is a minor issue. The great fact remains, that the principles of cleanliness, though adopted theoretically throughout the world, are really carried out very imperfectly by most nurses, most hospital internes, some general practitioners in town and country, even (must it be said?) by many otherwise most excellent and estimable surgeons.

This is not the place to bring forward the overwhelming evidence in favor of surgical cleanliness in saving life and promoting swift recovery from operations impossible without it. This work has been done again and again. Many of us see it daily.

Let no one be misled by the war of methods into suspecting the truth of principles. Let each of us train himself constantly to make his work clean. Only by long practice can this be done.

In regard to the use of chemicals, it is known that in abdominal operations they are not necessary. In general surgery, including railroad and machinery accidents, better results can be obtained by the use of sublimate. Perfect asepsis, though it should be aimed at, is almost impossible as a practical measure. The assistant of the moment is often untrained, and can neither be relied upon nor narrowly watched; nurses may be new to the work, derelict or incompetent; the wound is frequently infected before it is seen. The best results in general surgery are obtained with least trouble by combining the aseptic with chemical methods.

Further, let no man venture to criticize methods which he has never fairly tried; let him also bear in mind that his trial, though honest, may be superficial, and therefore faulty through his lack of patient personal training.

In conclusion then, in answer to the question: When is antisepsis or asepsis a failure? one may say, never if real, always if imperfect.

There is no doubt that the great principle of cleanliness in surgery, whether obtained by soap, hot water, dry heat, or chemicals, has come to



stay, and the sooner all of us act thoroughly upon that principle, ignoring personal discussion, the better.—*J. E. Shoemaker, M. D., Journal of the American Medical Association.*

**OPERATION FOR OPENING THE POSTERIOR MEDIASTINUM.**—In a recent communication to the Société de Chirurgie of Paris, M. Quenu described an operation he has lately devised, in association with M. Hartmann, for gaining access to the posterior mediastinum. (British Medical Journal, from *Revue de Chirurgie*, No. 3, 1891.) A vertical skin incision is made midway between the spinal border of the scapula and the vertebral column. After division of the exposed portions of the trapezius and rhomboid muscles, and displacement inward of the outer border of the sacro-lumbalis, a portion of the entire thickness of each bone and about three quarters of an inch in length is taken from the third and each of the two following ribs. An opening is thus formed nearly five inches in length, and extending from the first rib to the upper border of the sixth. Quenu states that by separating the sides of this wound one can see very clearly the whole of the posterior mediastinum and all the organs it contains. This operation, it is pointed out, is attended with more difficulty and danger on the right than on the left side, because, as was first shown by Braune, the pleura, which on the left side passes directly from behind forward, insinuates itself on the right side between the esophagus and the vertebral column in order to reach the aorta. Operative penetration into the posterior mediastinum might, it is thought, be indicated in disease of any organ contained in this part of the thoracic cavity, but is most likely to be needed in cases of impacted foreign body in the lower part of the esophagus. The anatomical conditions in this operation are not favorable to removal of malignant disease of the gullet unless the growth is of very limited extent.—*Boston Medical and Surgical Journal.*

**INTRA-CRANIAL TUMORS AND THEIR LOCALIZATION**—In a paper read in the course of last year by Dr. Putnam, of Boston, before the New York Medical Association, attention is directed to the value of the commencement of a convulsion as an indication of the position of the exciting cause of the fit. He starts with the Jacksonian dictum that, given an irritation of the arm or leg area, the attack is most likely to begin in the thumb or fingers in one case and in the toes in the other, these parts being the most highly specialized or the most lately evolved in their respective limbs. Considerations are urged by Dr. Putnam which are really corollaries of this proposition. They refer

chiefly to the occurrence of convulsions in the limbs as effects of tumor at some distance from the limb areas. Particular reference is made to one case published by the author, in which he himself witnessed a convulsion of several minutes' duration, occurring at the shoulder, and unattended by loss of consciousness. This, however, was the only attack witnessed, although (according to the history) there had been others of a more general character, and it was not considered to furnish sufficient justification for operating. Had an operation been performed, with the indication afforded by the occurrence of this convulsion, the tumor would have been found, for it lay at the posterior end of the middle frontal convolution, and had rolled over the upper edge of the hemisphere toward the falx cerebri, strongly compressing the intervening parts. To sum up, the author concludes that the following list indicates approximately the liability to convulsion by irritation in the neighborhood: (1) Hand, (2) face, (3) toe and foot, (4) elbow, (5) leg, (6) shoulder, (7) trunk, and, conversely, convulsions limited to or commencing in the parts mentioned in the end of the list would furnish much more reliable indications for localizing the irritation than convulsions starting in the hand or face. A similar line of argument is pursued with regard to indications afforded by speech derangement, comprehension of speech in this relation being regarded as the less specialized or evolved condition, and therefore as furnishing by its disturbance a more reliable guide in localizing a lesion than is afforded by disturbance of the more highly specialized power of expression.—*London Lancet.*

**THE ETIOLOGY OF ACUTE SUPPURATION.**—An interesting review of Steinhaus' exhaustive work on this subject closes with the following paragraph, which is of surgical interest:

"That, so far as our present knowledge is to be relied upon, we are justified in believing that suppuration in the living tissues is the result of some certain chemical action, which may be combined with the presence of bacteria, or may be obtained from pure chemical substances without the presence of micro-organisms."

Whether this is merely of theoretic interest or not, and that practically in clinical work all suppuration is due to microbes, is still a question unanswered. It is of especial interest in regard to cold abscesses, whose pathology is still unsettled. Steinhaus also claims to have demonstrated that the action of the same micro-organisms varies greatly in different animals, thus explaining many apparently contradictory experimental results.—*Boston Med. and Surg. Jour.*

# The American Practitioner and News

"SEC. TENTI PENNA."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } Editors.

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## SHOULD WOMEN PRACTICE MEDICINE?

Socrates thanked the gods daily that he was a human being, not a beast; a man, not a woman; a Greek, not a barbarian. If he be quoted aright, the most popular lady's man in England stands in with the father of philosophy on the second count. Mr. Lawson Tait is said to have said: "For the greater part of my life I have been engaged in the study of and practice among the special diseases of women, and no conclusion is more firmly rooted in my mind than a devout thankfulness that I belong to the other sex." "From the cradle to puberty they seem to be on fairly equal terms with men, but from that moment through the whole period of active life their existence is one of prolonged suffering." "The great function of their lives is led up to by troubles, and from it endless suffering springs."

No practitioner of the healing art will fail to give this a melancholy seconding. For, granted that "*omnis* is born to trouble as the sparks fly upward," the physician knows, as no other can know, that suffering and woman are well-nigh synonymous terms. From puberty to senility she carries the heavy end of the burden of life. If forbidden the exercise of the

function for which she was made, the life long hunger of her heart can never be satisfied by the hooks of business, professional or artistic success. The spinster is her anatomy for which nature makes no provision. If she marry, and thereby attain motherhood, which is her destiny and crown of rejoicing, she must enter this her heaven appointed sphere at the cost of early pain and peril, later pain and danger, and with the prospect of still further pain and jeopardy.

When to these unavoidable physiological loads are added the avoidable tortures which a false, a wicked and cruel state of society launches upon her, the most optimistic philosopher might well be pessimistic on the woman question, and thank the gods with Socrates and Tait that his part in the major function of life is begetting and not conceiving.

In the opinion of the editor of the Journal of the American Medical Association the deliverance of Mr. Tait bears heavily upon the question of the fitness of woman for usefulness in the healing art. He says:

"Two arguments, based upon Lawson Tait's exposition at once present themselves: (1) Can unfortunate, pain-afflicted woman ever occupy a sphere of unquestioned usefulness in medicine, where physical and mental vigor, fortitude, and endurance are eminently requisite, and where the strong must help the weak, help them by virtue of their strength to healthier and stronger states? or, (2) Can the power of sympathy—operating from the intelligence of affliction and the possible comfort of relief, together with knowledge and discrimination, pass from a medical woman to her suffering sex with a probability of extenuating their distress equally as great as would maintain under the fullness of power mentioned in the first proposition?"

"Such is the question, the argument of which has been before the medical profession for some time, but the solution of which may not be said to have as yet been reached.

"This much remains clear, however, woman has yet to achieve any greatness in the ranks of medicine, and if such is to be her future portion it must be in the direction of relief to her own sex. She must become a Lawson Tait, a Spencer Wells [Why not a Sims?], a Battey, Thomas, Price; or, if that be impossible under



the outlines of the first great general question and the conclusions of Lawson Tait, then must she rest, in the unsought weakness of her nature, as a follower of man, and under the privilege of that sympathy which, if properly fortified, may reach, if not greatness, that degree of usefulness the medical world can not with reason gainsay."

To our mind neither of the two above deep and dark questions can be answered until the typical woman, that is, the wife and mother, shall enter the ranks of medicine. As a rule she is better employed; and if by chance she be deprived of her natural support, she is too much handicapped by maternity and poverty to begin life in a great profession. Against that large and daily increasing class of involuntary spinsters, which the worthlessness of man and the pinch of poverty have forced to seek support out of the proper sphere of woman, no great profession will bar the door. Among these may be found a few who will follow science with masculine force, enthusiasm, and success, but the majority must ever be unsexed, discontented, and unsuccessful anomalies, whose only hope for usefulness and happiness is in marriage and its consequences.

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### Notes and Queries.

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THE NATIONAL CONFERENCE OF THE STATE BOARDS OF HEALTH.—The seventh annual meeting of the National Conference of the State Boards of Health was held in the Ebbitt House on the Saturday and Monday before the meeting of the Association. Dr. J. N. McCormack, of Bowling Green, Ky., presided. An address of welcome was made by District Commissioner Douglass, after which Dr. Cochran, of Alabama, read a paper entitled, "What are the Requisites for a Thorough System of Quarantine and Maritime Sanitation in the Light of Present Scientific Attainment?" He thought that the port of Havana was the proper place for quarantining yellow fever ships, which nearly all came from Cuba. Next Dr. S. R. Oliphant, of New Orleans, discussed the questions: "Given a vessel, with cargo from Central or South America or the West

India Islands, can such vessel and cargo be disinfected without discharging the cargo?" and "Can such cargo be disinfected thoroughly and without damage after it has been discharged?" The speaker believed that the best method of disinfection of vessels was by sulphurous acid. Dr. Cochran did not think disinfection of a ship's hold and cargo could be effected in this way. Dr. Salomon, of New Orleans, read a paper on the means of preventing the carrying of infection from one State to another. Dr. Balch then discussed the question, "Should State boards of health have control of the sanitary arrangement of all school buildings to be erected within their boundary?" and, "What is the best plan to secure such control?" He argued against the direct control of school matters by the State Board. The second session was occupied mainly with the discussion of what boards of health should teach and do to prevent consumption. The election of officers resulted as follows: President, Dr. J. N. McCormack, Kentucky; Secretary, Dr. C. O. Probst, Ohio; and Treasurer, Dr. Henry B. Baker, Michigan.

**PATHOLOGY OF GRIEF.**—That severe mental distress or fright sometimes produces physical disease, and occasionally even death, is an admitted fact, although the way in which it acts has hitherto been but little studied. In order in some measure to supply the deficiency in our knowledge regarding this matter Dr. G. Bassi has recently made a number of observations on animals which apparently died in consequence of capture. Birds, moles, and a dog which had succumbed to conditions believed by Dr. Bassi to resemble those known among human beings as acute nostalgia and a "broken heart" were examined *post-mortem*. Generally there was hyperemia, sometimes associated with capillary hemorrhages of the abdominal organs, more especially of the liver, also fatty and granular degeneration of their elements, and sometimes bile was found in the stomach, with or without a catarrhal condition. The clinical symptoms were at first those of excitement, especially in the birds, these being followed by depression and persistent anorexia. The theory suggested by Dr. Bassi is that the nervous dis-

turbance interferes with the due nutrition of the tissues in such a way as to give rise to the formation of toxic substances—probably ptomaines—which then set up acute degeneration of the parenchymatous elements similar to that which occurs in consequence of the action of certain poisonous substances, such as phosphorus, or to that met with in some infectious diseases. In support of this view, he points out that Schule has found parenchymatous degeneration in persons dead from acute delirium, and that Zenker found hemorrhages in the pancreas in persons who had died suddenly; he refers also to some well-known facts concerning negroes in a state of slavery, and to the occasional occurrence of jaundice after fright. He hopes that these hints may induce medical officers of prisons and others to study both clinically and anatomically this by no means uninteresting or unimportant subject.—*Gaillard's Medical Journal*.

**A DOMESTIC STERILIZER.**—There are few houses in which a ready sterilizer is not at hand, namely the kitchen oven. The heat which can be generated in this culinary appliance would be more than sufficient to destroy those forms of germ life which are inimical to wound treatment. With a clean receptacle at hand, into which towels and other appliances required for the purposes of an operation could be placed, the kitchen oven could be relied on to effect the necessary sterilization of these with convenience and dispatch. Thus as an improvised "sterilizer" we can easily conceive of the occasions when a surgeon would be glad of the assistance of the kitchen oven.—*Medical Press and Circular*.

**THE COMMITTEE ON HYPNOTISM.**—The committee appointed by the Section of Psychology at the annual meeting of the Association in Birmingham has held its first meeting. Dr. Needham, the president of the Section, was unanimously elected chairman of the committee. The following headings were decided upon as a basis for carrying out investigations: (1) The Nature of Hypnotism and its Nervous and Mental Relations. (2) Its General or Limited Applicability as a Therapeutic Agent in

different classes of disease. (3) The Degree and Mode of its influence on Morbid Condition. (4) Its Dangers and the necessary Safeguards. At the request of the committee Dr. Kingsbury, of Blackpool, consented to visit various centers to meet members of the committee residing therein, and aid them in their investigations.

## SPECIAL NOTICES.

### STERILITY:

R Fl. ext. pulsatilla.....1 oz;  
Aletris cordial [Rio].....7 oz.  
Sig: Teaspoonful three times a day.

W. R. WARNER & COMPANY are evidently determined to keep in the van of therapeutic remedies. "Antalgic Saline" appeals to us to-day for recognition as a remedy for the relief of "headache," also for influenza and neuralgia, and as an antidote of "*la grippe*" they issue the "Pil. Chalybeate Compound:"

Composition carb. protoxide of iron. 2½ grs.;  
Ext. nuc. vom..... 1 gr.

Sig: One pill every four hours and increase to two pills three times a day.

Antalgic Saline, one dessertspoonful every four or five hours till relieved for headache. the same mode of administration precedes that of the chalybeate pills for "*la grippe*."—*Weekly Medical Review*.

**POPULAR FAITH IN ALTERATIVES.**—Since the nature of the action of this class of remedies is to some extent as yet undetermined and obscure, they are necessarily prescribed empirically. To this fact is perhaps due the promiscuous use by the public, not infrequently with the indorsement of physicians, of a host of nostrums of no real medicinal value. Many of these have had an enormous sale—indicative not so much of their worth as of the general belief in the necessity for the use of what are properly termed "blood purifiers." Spring is the season when these are most generally resorted to.

When we consider that there is no condition of disease in some stage of which tonic alteratives are not indicated, it will be appreciated that next to agents such as opium and quinine, the action of which is specific, no class of remedies are more frequently demanded.

Messrs. Parke, Davis & Company supply, under the name of Syrup Trifolium compound, an alterative formula containing Red Clover, Stillingia, Cascara Amarga, Burdock Root, Poke Root, Prickly Ash Bark, Berber's Aquifolium, all valuable vegetable alteratives, either with or without Potassium Iodide. This has been used by physicians with much success in all conditions requiring alterative treatment.

NOTWITHSTANDING the large number of Hypophosphites on the market, it is difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in *perfect solution*, and is not liable to the formation of fungous growths.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

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No. 1.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

## Original Articles.

### LESSONS TAUGHT BY A POST-MORTEM.\*

BY J. G. CARPENTER, M.D.

To one the battle of life is over, yet life could have been saved and the enemy vanquished. Yes, the victim is dead, the grass grows over her grave, the willows bend their heads in silence and sorrow, the dewdrops as they gather upon the sod show that nature weeps. The winds, as they sweep over the fields and kiss the hill-tops, whisper the sad, sad requiem of the past and the might have been.

This mass of clay was once the tabernacle of an immortal soul. The spirit has winged its flight to the bright beyond, and this relic is a sign-board to warn the physician of the dangers of timidity, ignorance, prejudice, and delay. It is a pathological light in the surgeon's light-house to guide the frail bark tossed upon the sea of disease into the haven of rest, the surgeon's haven and security of life.

The title of this paper might have been appropriately called "The Past and the Might Have Been," text taken from the Gospel of Asepis in the Acts of Abdominal and Pelvic Surgery.

Through the courtesy of Dr. O. H. McRoberts I was invited to witness a *post-mortem* examination authorized by the County Judge upon the person of a negress who had died suddenly, only ailing seriously about thirty-six or forty-eight hours. The history obtained was this: The deceased had been having spells from

time to time of "colic" or pain in the bowels; that no physician had been called on these occasions, but a dose of morphine and hot poultices had been used. She no doubt had been taught formerly the seductive influence of morphine by some hypodermic tinkerer ignorant in the diagnosis of intra-pelvic ailments.

On inspection the *rigor mortis* was marked. The belly was opened crescentically on left side from ziphoid cartilage over colon, across the hypogastric region, to right anterior superior spinous process of ileum, the abdominal wall turned over on the right side, the abdominal contents and cavity and pelvic organs brought prominently to view; and this method is to be preferred to the median incision in making *post-mortems* in this region. The belly was full of offensive and acrid pus. There was the most marked and unique purulent general peritonitis. The *caput coli* and ascending colon were gangrenous and more or less disintegrated, the appendix vermiformis destroyed. Numerous lymph bands stretched across the bowel at several points, constricting its lumen. The colon was perforated, and the most extensive and intimate union by adhesion existed between the ascending colon and uterus and wall of the right fallopian tube; but really the latter had degenerated into an immense abscess, whose walls were greatly thickened and condensed by inflammatory products. When the abscess wall was opened, the tube and ovary were found destroyed by maceration and disintegration. A quart or more of offensive pus was evacuated. The abscess had its origin in a gonorrheal pus tube. The intimate peritoneal adhesions, effusions of lymph, and organized bands teach the efforts of nature to do the best she could to stop leaks, strengthen weak points, and offer barriers of defense until surgical interference is resorted to, and life saved by the surgeon.

\*Read at the May Meeting of the Kentucky State Medical Society.

This case teaches us the origin of all these abdominal lesions was gonorrhea, which terminated in a pyosalpinx of the right tube; that after intervals of repose relapses of local peritonitis supervened from leakage of the tube and infection of the peritoneum; that the victim would have been amenable to rigid surgical treatment. The aseptic hand, knife, drainage-tube, and irrigation would have saved a life now lost. Not only would a life have been saved, but a timely abdominal section would have caused a separation of the various adhesive divisions of the constricting bands that were obstructing the lumen of the bowel, and an appendisectomy would have removed the inflamed appendix and formed an extra wall of peritoneum to prevent perforation of the intestine.

This is a typical case of what is occurring and has occurred in every village, town, and city from week to week, month to month, and year to year with certain physicians, ignorant in the diagnosis and pathology of pelvic diseases, who take all pelvic diseases to be uterine, and whose only means of diagnosis is the uterine sound and speculum; who are mentally myopic, and see and feel no further than the fornix vaginæ, curette normal uterine tissue, and resort to rapid dilatation, hoping that a cervical stenosis exists, and that the measure will do no harm if not great good; who, though dysmenorrhea and other pains are tubal or ovarian, mistake hydro- hemato- or pyo-salpinx for versions, and insert a pessary which always injures the patient. These blunderers in diagnosis, palliators of disease, and electro-physicians depend upon opium, morphine, and the hypodermic syringe, chloral, blisters, nitrate of silver, douches, iodine, carbolic acid, electricity, etc., to remove such pathological lesions as are here enumerated. These palliators through delay become aggravators of disease; do not cure, but add fuel to the fire, obstruct the work of the surgeon, make chloral and morphine habits, procrastinate the health and happiness of the patient, and the last or abandoned state is worse than the first.

Palliative measures are good when properly used at the right time, are often curative and have a limited field, but to continue their use when radical surgical measures are forcibly in-

dicated is non conservative and malpractice *per se*, and the perfection of conservatism becomes a rigid aseptic surgical operation. Furthermore, patients are permitted to die that could be easily and quickly saved by section, drainage, and irrigation. These palliators present long and expensive bills, get handsome pay for adding the many straws that break the camel's back, forgetting or ignoring the fact that delays are dangerous; time waits for no one; procrastination is the thief of time; blind to the fact that the surgeon would cure with less pain, time, and expense, with a rapid restoration to health in a few weeks.

The surgeon should be looked upon by the physician who does not operate in abdominal and pelvic diseases as the "fire brigade," who opens the door of the abdomen, inserts the hose, turns on the hot aseptic water, and extinguishes the smouldering or flaming peritoneal fire, removing disease and complications that in a few hours or days would destroy life.

The one thing needful to-day is more and better diagnosticians in pelvic diseases. The *tactus eruditus* is not only required by the index finger, but each finger should have an intelligent eye upon it to survey the vast domain of intra-pelvic affections. Little or no uterine sounding and less specular sight seeing is highly essential, while more expert digital and conjoined manipulation is demanded.

Ignorance and timidity in the diagnosis of pelvic and abdominal affections are not alone confined to the "professional country cousins," but to very many of the city physicians. In conclusion, it may be truthfully stated that physicians who are abundantly able to pilot the patient over an attack of pneumonia, typhoid fever, adjust adequately a broken bone, or do an amputation, are often sadly deficient in the diagnosis and treatment of intra-pelvic ailments. Conservatism is doing the right thing at the right time. The Scripture states if the eye or the hand or a limb is evil and offends the body, it is better to remove the offending member than to lose the whole body.

General surgery has taught us from time immemorial to remove necrosed bone, raise a depressed skull, lay open sinuses, evacuate abscesses; but physicians do not yet realize or are



not possessed of that diagnostic skill that should enable them to differentiate intra-pelvic affections and have such lesions removed early.

In a few more years the removal of large ovarian tumors will be an anomaly, because they will be detected when small and removed before adhesions and structural lesions have formed and constitutional manifestations have arisen, and when the patient is in the best health for a safe and uncomplicated operation.

A voice is crying to-day: Save the mother and wife with the leaking tube, save the husband and father with obstructed bowels, save the child with an appendiceal lesion. The password all along the line is: Save life! do not operate to do ideal operations, but save poor sufferers from death and the grave. There is no need of rushing patients off to distant cities when men at home can and should operate. Physicians in country towns can be as competent as those in the cities. They read the same books, attend the same lectures and hospitals, take the same private courses, use the same kind of instruments, methods of operating, and technic of dressings, and attend the same medical societies. Any town of a thousand inhabitants or County Medical Society that has not a physician thoroughly equipped, posted, and prepared to do the operations of special surgery should blush with chagrin.

The best work in abdominal and pelvic surgery done in America has been by Dr. Joseph Price and his students, young men who have not reached the "sere and yellow leaf" of life. Dr. Price has done 900 operations, with a loss of 27 lives; has done more than 120 sections, without a death; 57 sections for extra-uterine pregnancy, with 2 deaths; has done even 43 supra-vaginal hysterectomies, without a loss of life, even excelling Mr. Tait in this operation, and leaving Bantock, Wells, and Keith in the distance. Dr. Price's best work has been done not only in picturesque sanitariums, but in the courts, garrets, and cellars of Philadelphia, in families so poor that nurses had to sleep on ironing boards for two or three weeks' sieges. The keynote of success is the aseptic room, furniture, bed, physician, assistants, instruments, nurse, and dressing.

While you are exporting the patient to a

distant city, collapse and death may ensue. Had the physician at home been equipped and operated early, and avoided the extra risk of removal, many lives might have been saved that were lost. An interval or delay of one, three, six, or twelve hours often means death. Therefore you can not afford to wait for the far-away surgeon in the city. Let "*semper paratus*" be our motto, and wherever we find the patient, either in the palatial mansion, the country home, the log cabin, or village hut, garret, or cellar, remember there is a life to be saved, a victim to rescue from the grave.

Fifty per cent death-rate from intestinal obstruction will in the near future be greatly reduced when there is an awakening among the profession generally. There have been already beautiful results obtained by the advance guard, one of whom is a Lexingtonian. In the days of the past Lexington had her famous Dudley. To day she has a noble surgeon, Dr. David Barrow, a disciple of that illustrious abdominal and pelvic operator, Dr. Joseph Price. Barrow, though skilled in the surgical treatment of stab and gunshot wounds of the abdomen, has reported two cases of intestinal obstruction, with recovery, at the late American Medical Association.

In Kentucky, the home of abdominal surgery, patients continue to die with "locked bowels," because an early diagnosis and operation is not done. An early diagnosis of intestinal obstruction, with the use of Senn's hydrogen gas, can be made, and the seat of obstruction, whether in the larger or small bowel, located before operation, and when first suspected, and before inflammation, sloughing, and gangrene have resulted. When gangrene has resulted, the surgeon should exclaim to the physician, "Too late! too late! you can not enter now." The physician, if he suspects intestinal obstruction, should be able and equipped to use Senn's hydrogen gas by inflation.

Test the permeability or non-permeability of the intestinal canal, locate the obstruction in the large or small bowel, or both, always under an anesthetic. If obstruction is present, the physician should irrigate and evacuate the stomach, then send for the surgeon, stand back, fold his arms, and await the surgeon's arrival,

because without the latter he is as a mariner at sea without a compass, and the surgeon must be sent for early, before irreparable structural lesions have formed and the chance of recovery lost, if we wish to reduce the mortality to three per cent, as in other abdominal and pelvic operations.

You are all doubtless familiar with sudden deaths, the cause being some obscure ailment manifested in the abdomen, viz., an intussusception, intestinal obstruction or perforation, appendicitis, ruptured pus tube, or a supposed dysmenorrhea treated for an ectopic pregnancy, palliative treatment having been used. If the surgeon skilled in abdominal and pelvic diseases had been called, an abdominal section would have been done and life saved. The physician being called, he draws his weapon, the hypodermic syringe, and shoots his patient with morphine, obscuring important symptoms highly indicative of and demanding section. The patient dies. Section would have saved the life, revealed the obscure lesion and removed it, given back to the patient three-score years and ten, and the last days on earth would have ended in a tranquil euthanasia.

In the future let us have early diagnosis and early operation, before structural lesions have occurred, when the patient is in best possible condition for operation. Let the operation be done by a surgeon skilled in all the details of abdominal, intra pelvic, and intestinal surgery, who operates quickly, safely, expeditiously, economizing time, minimizing shock, lessening the stage of anesthesia, and protecting the viscera under aseptic precautions, with little or no taxis. Then successful and brilliant results will crown our efforts.

STANFORD, KY.

THE Minister of Education and Medical Affairs freed Professor Koch from his professional duties during the past winter session to enable him to devote his undivided attention to the study of tuberculosis. The private lecturer, Dr. von Esmarch, a son of the famous surgeon of Kiel, lectured on hygiene in his stead, and conducted the practical work in the Hygienic Institute. It is believed that Dr. Koch will not return to the Chair of Hygiene.

## THE OCULAR COMPLICATIONS OF "LA GRIPPE."\*

BY J. MORRISON RAY, M. D.

*Lecturer on Eye, Ear, and Throat Diseases, University of Louisville.  
Surgeon to Eye and Ear Department SS. Mary and  
Elizabeth's Hospital.*

Doubtless every member of this Society has had under his observation numbers of cases presenting some of the many sequelæ to the wide-spread epidemic of influenza which we have passed through during the past two seasons. The respiratory passages have been the parts most frequently involved. Aural, nasal, naso-pharyngeal, laryngeal, and pulmonary troubles have occurred without number. In such a debilitating disease, with such marked depression following, it is to be expected that the eye would also show its evil effects. It has been my fortune to observe many cases in which eye symptoms were present either during the height of the attack or following soon after convalescence was established.

No eye disease can be said to be a characteristic symptom or sequela. Similar diseases have occurred independently, yet the frequency of conjunctival and corneal diseases in the victims of *la grippe* has attracted the attention of many. The majority of those I have observed have been of this class. Two cases seen at their homes during the epidemic presented intense conjunctivitis with great edema of the lids and chemosis of the conjunctiva, with but little secretion of a watery mucus. Under local applications of hot water with a boric acid collyrium they quickly recovered. A number of other cases seen after the attack presented more serious complications; and as the history pointed directly to the influenza as the exciting cause, it might be well to give the history of a few of them.

Mrs. B., aged forty-one; seen in February, 1891. She was confined to her room, suffering from what her family physician considered an attack of *la grippe*. Three days previous to my visit she noticed the sight of the left eye was obscured, and she had suffered much from a neuralgic pain around that eye. On examination I found no external evidence of disease.

\*Read before the May Meeting of the Kentucky State Medical Society.



She could only count fingers at six feet. The other eye appeared normal in perception. Ophthalmoscopic examination showed an anemic optic nerve and retina. The blood-vessels were small and the disc pale; no gross lesion. A solution of atropia was ordered instilled into the eye, and the following day a more thorough examination of the ocular fundus was instituted, but beyond the exsanguinated appearance of the nerve and retina nothing was found. She was kept under observation daily for several days; the sight improved in the left eye and she was able to come to my office. Six days later she complained of the right eye, and when tested it was found to have only ability to count fingers. Examination by the ophthalmoscope presented the same picture as had been shown by the left. Under tonics and atropia solution locally the eyes gradually improved until normal vision was established. The diagnosis in this was made of "ischemia retinæ."

Mrs. D. had a severe attack of *la grippe*. During convalescence she began to see double, and her daughter noticed that the left eye turned in. When I saw her the following day there was paralysis of the left external rectus muscle. No history of rheumatism or syphilis was obtained. Tonics with strychnia internally and galvanism were used, but without effect on the paralyzed muscle.

Mrs. K., aged thirty, had a most severe attack of *la grippe*. During its invasion she had severe conjunctivitis that yielded to local treatment. In a few days afterward she began to notice rings around the lights and complained of neuralgia about the eyes; the sight became dim. When I saw her there was only perception of light in the right eye; injection of the blood-vessels of the conjunctiva, shallow and hazy anterior chamber, dilated pupils, with tension +2: in fact all the symptoms of acute glaucoma. As the patient was still much depressed and suffering from severe cystitis, the local use of eserine was tried until her condition admitted of operation. Four days later, as the symptoms were only partially allayed, I advised and performed double iridectomy. The operation was difficult owing to the slight anesthetic effects of cocaine and the very shallow anterior chamber. The operation relieved all her eye

symptoms, and when last seen her vision was  $\frac{20}{40}$ , yet the ophthalmoscope showed still present slight arterial pulsation on the disc with a shallow excavation.

While this paper was in process of preparation I saw another case of glaucoma which traced all the symptoms to an attack of *la grippe*. I operated by iridectomy, and the case is now under treatment, having been operated on only three days ago. In this case the glaucoma has destroyed all perception of light in the right eye, and the left has only ability to count fingers. The operation will probably only furnish relief from the neuralgic pains and the increased tension, sight being too far gone to be improved by the operation.

I was sent for to see Mrs. C., who was considered to be convalescing from *la grippe*. She said that during the height of the attack her eyes had been red and light painful, but since then the left lower lid had begun to swell and became red and painful. On examination I found acute inflammation of the lachrymal sac, with an intense erysipelatous looking redness extending over the side of the cheek and nose. An operation for evacuation of the pus pent up in the lachrymal sac was advised and refused. Two days later, evidence of rupture externally being plain, I explained the disagreeable features of a fistulous opening in this locality, and she submitted to a slitting up of the canaliculus and evacuation of pus from the lachrymal sac. Subsequently I washed it out with a boric acid solution and pyocetanin. Lachrymal probes were passed through into the nose. The trouble in the sac subsided, yet troublesome epiphora still remains.

Mr. C., aged sixty-three, consulted me in April. He had suffered from *la grippe*, since which he had not been in his accustomed health. A few days before I saw him he noticed a blur over his right eye. On closing the left he was unable to see objects directly in front of him, but things around looked clear. Ophthalmoscope showed a large retinal hemorrhage directly in the macula. Chemical and microscopical examination of the urine showed nothing abnormal. The heart was normal.

While having this case under observation, Mrs. H., aged fifty-four, brought her grandson

to me for treatment. After which she remarked that one of her eyes had been troubling her since she recovered from *la grippe* three weeks ago, previous to which she had excellent sight and had only worn glasses for reading a few years. On examination I found the sight of the right eye to be  $\frac{10}{20}$ ; left  $\frac{20}{20}$ . Ophthalmoscope showed extravasation of blood in the macula. The hemorrhage was of dark color, sharply outlined, and covered considerable portion of the macular region. Examination of the urine and heart exhibited no lesion present.

In addition to these cases, the histories of which I have briefly sketched, asthenopic subjects, with or without hypermetropia, present themselves almost daily and trace their trouble to *la grippe*. In a search of the literature of the subject, I find the majority of the observations have been made by foreign writers, Dr. Alt, of St. Louis, excepted. In the American Journal of Ophthalmology, February, 1891, he reports his experience. The majority of the cases he saw were cases of conjunctival chemosis with edema of the lids. Some of these were so violent as to lead to the suspicion of beginning of gonorrheal infection. He also reports cases of ischemia retinae occurring during convalescence. Fuchs reports a number of cases of inflammation of Tenon's capsule following the attacks. He was led to the belief that they were complications of the disease from the fact that four of them came under observation in the space of two weeks, all in subjects who had suffered from the epidemic. Whereas in his extensive clinic he had only met with one similar case previously. Faye reports thirty two cases presenting different eye symptoms. He says the eye trouble may make its appearance during the attack in decline or when convalescence has far advanced. The attacks are favored by bad constitutional conditions; but in many cases he believes there is a true infective process, especially in those suffering from conjunctival and corneal involvement. The observations of Landolt agree with those of Alt and Fuchs in that conjunctival and episcleral invasion were the most common sequelæ.

In the January number of the Archives of Ophthalmology, Beaumont reports the details

of twenty-three cases of different forms of eye trouble encountered by him as the sequelæ of *la grippe*. His list contains a number of cases of lachrymal abscess, ischemia retinae, glaucoma, and asthenopic symptoms. The cases I have presented are, I find, similar to those reported by others. It was not expected that a new eye disease would be found that was a constant accompaniment of *la grippe*. It is the observation of all competent ophthalmologists that such diseases as transient amblyopia, ischemia retinae, glaucoma, and retinal hemorrhages occur during any form of constitutional disturbance in which the vital powers are lessened from an impoverished blood circulation. Therefore in a disease as wide-spread as the influenza it is not surprising that we found serious eye disturbances during its prevalence and that it has departed leaving traces of its presence in its wake.

LOUISVILLE.

## Societies.

### KENTUCKY STATE MEDICAL SOCIETY.

Thirty-sixth Annual Meeting, held in Lexington, May 27, 28, and 29, 1891, George W. Beeler, M. D., President, in the chair.

[CONTINUED FROM PAGE 407, VOL. XI.]

J. G. Carpenter, M. D., of Stanford, read a paper entitled Lessons Taught by a Post-Mortem. (See page 1.)

### DISCUSSION.

Dr. John M. Foster, Richmond: There are three points in the paper that are worthy of some remarks. The first is the necessity for early operation in pelvic and abdominal troubles. The second is, who shall operate? The third question pertains to early diagnosis. Of course every thing depends upon the third point. I have not time to go into a lengthy discussion of the subject. It is, to a certain extent, a hackneyed one, and I would not care to consume the valuable time of the Society in going over points which have been gone over so frequently.

In regard to the necessity for early operation, I think a large number of the gentlemen



here realize this important point, and it is useless to emphasize it.

Who shall operate? If that question were discussed at length it might provoke some criticism and consume valuable time. The question can be quickly and easily answered in this way: By any man who is competent, who knows what his opportunities have been and knows what his facilities are for operating. While there is no doubt that practice makes one perfect, and that a person becomes more and more proficient and skilled in the performance of these operations in proportion to the number of cases he has to operate upon, and can give us a better rate of mortality; yet I see no reason why the country physician, who feels competent and has opportunities for doing the work, and has prepared himself for it, should hesitate to perform these operations. Any man who feels competent should do the work. If the country practitioner feels that he is incompetent, he should call in some specialist. But under ordinary circumstances a man with skill and experience can do this kind of work.

With regard to diagnosis, this is an important point. It has fallen to my lot to see a great many cases of ovarian troubles, and while it may be pyosalpinx, hydrosalpinx, or something else, yet in nine cases out of ten one may be mistaken in diagnosis, and mistakes are made in this regard by expert surgeons. Of course, the diagnosis is easily made after you have entered the abdominal cavity.

Dr. Carpenter seems to dwell on the matter of diagnosis, and censures physicians for not making an early diagnosis in these cases and operating. The remedy for this evil or lack in early diagnosis comes from medical education. A higher medical education will solve the problem of early diagnosis not only in pelvic but in other troubles. The successful doctor is one who is capable of diagnosing a disease; but there seems to be a secret success in some of these cases, and I am looking forward to a higher medical education which will give us a remedy for this evil or lack of knowledge in making early diagnoses.

Dr. C. Skinner, Louisville: I am glad I heard the paper by Dr. Carpenter, and I want to sup-

plement it by reporting a case just identical with it, because it seems to go along with the admirable specimen which has been presented. Mine was removed *ante-mortem*, and the patient recovered, and it has certainly made me feel bolder in opening the abdominal cavity, or at least in making an exploratory incision.

I will relate the case briefly. I do not remember all the points. A woman, thirty-eight years of age, was referred to me by a brother practitioner. The history was very obscure. He had been attending her for a week or ten days for some fever, the temperature running up to 103° in the morning, and 104.5° in the afternoon, with a corresponding pulse. The only treatment she had been getting was opium and quinine. She had some swelling of the abdomen, and the attending physician desired me to see her. I went with him and found this condition of affairs: In the median line just over the bladder, or where the bladder should be, there was a marked tumor about the size of a coconut, sensitive and painful to the touch, and she had a temperature of 103.5° at the time. Suspecting it to be some tubal trouble or a salpingitis, I suggested that we make an exploratory incision, not venturing a positive diagnosis, but asking for an operation that would reveal what might be found in the cavity. This was presented to the family plainly and truly, and the dangers of an operation made known to the patient. She consented to an operation, as she felt she was going to die, and wanted any thing done to offer hope of prolonging her life. She was taken to an infirmary. I called in a couple of professional friends and asked them to examine the patient. They did, and disagreed with me in the matter of diagnosis. They said it must be a fibroid, but both concurred in an immediate operation. She was put upon the table at once, the abdomen opened, and a sac containing about ten ounces of pus was found. It was adherent to the bladder, and we had to introduce a sound into the bladder before we could tell whether it was really adherent to the bladder or pelvic walls. It was found adherent to the viscera, colon, and sigmoid flexure. It seemed to touch every thing, and it looked as though the patient would die on the table. Several physicians

had come to see the case. In the enucleation of the sac it was ruptured and pus spurted over the spectators. The cavity was flooded, which complicated matters. The sac was pulled out in pieces, and large flakes were found, proving that an old pyogenic membrane had formed there some time since, and which had become re-excited by some cause. This, as I said before, was removed, and the cavity irrigated with a solution of bichloride of mercury 1-5,000. Reaction was good, but prognosis bad. No one expected the woman to live. Her temperature at the time she was put on the table was 103.5°; pulse 120. The next morning after the operation temperature was normal and remained so until recovery was complete. The drainage-tube had been left in a week, and pus began to pour out of it; and even in that condition there was no elevation of temperature. This continued a few days longer, and within two or three weeks the sinus was completely healed, and the woman is now doing her work.

The operation in this case was deferred until it was forced, yet recovery was complete. I will bring up a point that was not spoken of until Dr. Foster mentioned it, and that is abdominal section for diagnostic purposes. I do not think the man exists or ever will exist who is accurate enough to make a positive diagnosis in one half of the cases he sees. You take a surgeon before he begins to operate, and he does not know sometimes what he will find. It may be a cyst, it may be a fibroid, an abscess, or this or that. No man can foresee what he will find in the pelvic cavity. I think abdominal section for diagnostic purposes has come to stay. It is an operation that will be done often. It will be done more this year than it was last. As mentioned yesterday in one of the papers read, surprises will always occur. You think you have a simple case to deal with when it turns out to be a difficult one, and *vice versa*.

As regards Senn's hydrogen gas test, I am not much in favor of it. I am not an iconoclast at all, but still I do not believe that we should risk the uncertainty of the gas test. It has failed more than once, and I do not think we should risk the patient's life in resorting to it when abdominal section for exploratory or diagnostic purposes is so safe. We

have had an illustration in this city that has been brought prominently before the medical profession where the gas was employed too late. One of the dangers in the use of Senn's gas test is this, that if extravasation of fecal matter does not take place through the rent, the gas will force it into the abdominal cavity and set up a fatal peritonitis. I think we can give the patient the benefit of the knife and not wait. Conservatism in gunshot wounds in the abdominal cavity does not lie in the direction of waiting. Conservatism is to open the abdomen, see what is the matter and close up the rents.

I want to go on record as being an advocate for early abdominal section for diagnostic purposes.

Dr. S. C. Davis, Mount Vernon: I rise to congratulate Dr. Carpenter on the excellent paper he has presented. It is in keeping with surgical progress. I wish to call attention to one point, and that is, who shall operate? It seems to me it is a question by some as to the right of a local or a general surgeon to operate in some cases of abdominal section. I wish to give some reasons why I think the general surgeon should operate. One of them is, that the general or local surgeon often sees the patient first, and this is a very essential point to remember. He clearly understands the conditions and idiosyncracies of his patient, and after all the surgeon's success depends upon his ability to calculate the amount of injury inflicted upon the resisting forces of nature. Being acquainted with the patient he is better able to calculate the power of resistance. One other reason why the local surgeon should operate: Very often many patients are not able to pay the price of specialists, and under such circumstances the surgeon should do the operation. I might mention one or two cases illustrating why the local surgeon should operate, but I will not take up the time of the Society, and will only say that I think illogical conclusions are arrived at by generalizing from a too limited experience. This seems to have been the case with the gentleman who, in the face of statistics, criticised the paper of Dr. Barrow in his report on abdominal section for gunshot wounds. This gentleman, because he happened to be



successful in treating three cases of gunshot wounds on the expectant plan, criticised the paper of Dr. Barrow, who shows in an analysis of twelve cases of gunshot wounds, where operation was done, about nine per cent died. Dr. McBurney, in an analysis of fifteen cases occurring at St. Luke's Hospital, where the operation was done, shows that of this number twelve cases recovered.

In pelvic troubles statistics show eighty per cent of successes in competent hands, while the expectant plan shows a death-rate of not less than fifty per cent. Where the specialist is readily accessible, I think the majority of people prefer him, but when we can not get him it is the duty of the general surgeon to go ahead.

Dr. J. G. Carpenter, Stanford: We can not wait for the specialist to come two hundred miles to perform an operation. While we are waiting for him the patient may die. If the local surgeon prepared himself to do abdominal and pelvic operations many lives would be saved that are now lost. The patient is carried to the grave when a rigid, surgical, aseptic operation would save life. I believe the physician and surgeon should go hand in hand; one should consider the interests of the other. There should be no rivalry; there should be peace and brotherly love, remembering that we are here to save life and to do good.

Now, as to the general surgeon. It is often the case that he thinks he understands these special subjects as well as the specialist, when he really does not, and I am opposed to any general or local surgeon doing these operations unless he is specially prepared and equipped for the work. Every county should have a surgeon prepared and equipped for these emergencies. It is wrong to resort to palliative treatment and then have a man die with obstruction of the bowel when an operation would have saved him before structural lesions had formed. I am in favor of early operation. We had better operate too soon than to wait until structural lesions have formed and death ensues.

Dr. Joseph Price, of Philadelphia, one of the greatest abdominal surgeons in America, whose work is equal to Mr. Tait's, has done 900 abdominal sections with only 27 deaths; 43 supra-

vaginal hysterectomies without a death. He has operated 57 times for ectopic pregnancy with only 2 deaths. He is going on to perfection step by step.

Now, there are times when the best and most expert diagnosticians will make errors. Even Price himself sometimes makes errors; but, as a rule, he finds what he expects to find. He makes his diagnosis beforehand. I believe, nine times out of ten, he will make his diagnosis sure. When asked what he expects to find, he may say one of a dozen things. We do not always find the one thing. We find several, which demand immediate operation, and we want a surgeon prepared and equipped to do these operations, knowing the field he is going to enter and explore; then with clean hands, clean instruments, a clean room, a clean nurse and assistant, and hot water, simplifying the operation in all its details, we operate. It is not necessary to transport patients to other cities and to private sanitariums, the work can be done safely at home and at less cost to the patient.

Resorcin as an Antipyretic was the subject of a paper by W. Carroll Chapman, M. D., of Louisville, of which the following is the author's abstract:

Resorcin has been especially under my observation since 1884. During this period of seven years I have prescribed resorcin almost daily as an antipyretic in the different fevers peculiar to this climate with most satisfactory results, and particularly in the pyrexia attending septicemia, malaria, typhoid fever, measles, dysentery, and cholera infantum have its effects been highly gratifying.

Resorcin is a chemical compound obtained from certain resins by the action of fusing alkalis. It is a member of the phenol group. It occurs in tabular prismatic crystals, colorless or slightly pinkish, rather shining and lustrous, somewhat sweetish taste, with a little after pungency. It is freely soluble in water in the proportion of 86.4 parts of resorcin to 100 parts of water at 0° C. The best vehicles are water, syrup of lemon, or glycerine.

Resorcin is antipyretic, antiseptic, and anti-fermentative. Dose for adults, two grains to two scruples.

Resorcin is antagonized by the cerebral excitants, by the agents which raise the arterial tension, and by the cardiac and respiratory stimulants—atropia especially. Its action is assisted by quinia, aconite, salicylic acid, carbolic acid, etc.

Besides being a reliable antipyretic, it has decided antiferment properties, arrests decomposition in animal tissues, deodorizes, and is destructive of the minute organisms on the presence of which putrefactive decomposition is dependent, and thus changes the character and odor of the contents of the alimentary canal in certain diseases, besides having, as is claimed by Lichtheim and others, a specific action upon the mucous membrane.

When thirty or forty grains are administered in a fever a sense of heat is felt about the epigastrium, and spreads thence over the system, the face flushes and grows hot, the eyes glisten, the breathing and pulse are accelerated, and dizziness, with ringing in the ears, and frontal headache are experienced. A good deal of discomfort, oppression of the chest, and a sense of distension of the head are usually produced; but these sensations subside in from ten to fifteen minutes, the skin then grows moist, and in a few minutes more a profuse perspiration is pouring out on the surface of the body. The pulse then falls, coolness succeeds to heat, languor to tension, and the temperature of the body declines several degrees. This occurs in about one hour's time. The temperature may be reduced as much as four degrees Fahrenheit.

Nausea and vomiting or any derangement of the gastro-intestinal tract is rarely ever caused by resorcin. It has a decided tendency to correct these disorders, partly by its antifermentative action and partly by a specific influence upon the mucous membrane.

Pneumonia, bronchitis, and erysipelas are least amenable to its antipyretic action.

No case of fatal poisoning, so far as known, has been recorded. Thirty or forty grains can be given without danger.

Compared with the other antipyretics resorcin seems the more desirable for a number of reasons: (1) It is fully as, if not the most reliable. (2) The ease with which it can be administered, being freely soluble, of pleasant

taste, and free from disagreeable odor. (3) It does not cause nausea and vomiting. (4) The physiological action is plain and can be watched with ease. (5) In a dose sufficient to reduce the temperature three or four degrees (thirty to forty grains) there is no danger.

In septicemia resorcin seems especially indicated, as it influences the febrile and septic condition favorably, thus lessening the severity of the disease. To support this claim, eight cases of septicemia were referred to, which came under Dr. Chapman's observation while he was resident physician of the Maternity Hospital in Baltimore. Resorcin was begun in the third case after the sixth day of the disease and after other remedies had failed completely. Resorcin controlled the fever and gastro-intestinal symptoms. The subsequent cases were treated with resorcin from the beginning with gratifying results. Of the eight cases four died and four recovered. Of those that died two did so before the resorcin was used. In the third, resorcin was not begun until the sixth day of the disease, then, after other remedies had failed, the temperature responded to its use. Of the five cases treated with resorcin from the beginning, four recovered. It is true the latter cases seemed milder, but might not this mildness have been due to the resorcin itself, in consequence of the readiness with which the fever responded to the remedy, the slight derangement of the stomach allowing a freer use of sustaining remedies, and finally to its antiseptic properties? Dr. Chapman related one case in private practice, and referred to another which bore strong evidence in favor of the belief that resorcin alleviated the symptoms in septicemia.

While the few cases cited are not sufficient to give us positive knowledge of the influence of resorcin in septicemia, they seem worthy of the careful consideration of reliable observers.

In malaria, resorcin has an antiperiodic effect in addition to its antipyretic action. In typhoid fever it is efficient. It seems to prevent excessive fever. By its anti-fermentative action it prevents excessive tympanites. If the belief of Hoefer, Lichtheim, and others is confirmed as to the specific action of resorcin on the mucous membrane, it will surely be indi-



cated as a guard against excessive sloughing of the peyerian and solitary glands and consequent intestinal ulceration.

In measles in the beginning of the second stage, when the eruption is slow about coming to the surface and the skin is dry, with irritating cough, it fills the office of sudorific and antipyretic, hastening the eruption, soothing the irritation, and reducing the temperature.

Attention is called then to the fact that resorcin is most valuable in fevers where there is a tendency to gastro-intestinal derangement, whether due to septic or other cause, in patients where a pleasant medicine is required, for children, especially in cases where the fever is very high and a quick result is desired and the physician wishes to watch the physiological action of the drug, and finally, in measles when the temperature is high and the eruption delayed.

#### DISCUSSION.

Dr. T. B. Greenley, West Point: Our thanks are clearly due to our young friend for the interesting paper he has read. It shows that he possesses an investigating mind, and he has proved by test the value of resorcin in various diseases. I have never used it as an antipyretic, but on several occasions I have used it as an alternative and curative remedy in the diarrhea of typhoid fever, and am well pleased with the results obtained. I have never ventured to use it in larger doses than five to eight grains, repeated at intervals of four or five hours.

Dr. J. G. Carpenter, Stanford: I rise to approve the paper just read. I think it is a most valuable contribution. I have had no experience with resorcin as an antipyretic, but I have used it locally in throat affections with remarkable success.

Dr. F. M. Green, Bloomfield: I wish to add my testimony to the value of this comparatively new antipyretic in typhoid fever, and likewise in dysentery, in which it may be used both as an internal remedy and as a wash. I have been well pleased with it in cases of dysentery, a disease which you all know is difficult to treat by the remedies usually given for it. I believe the antiseptic treatment of dysentery is the treatment *par excellence*. During last summer there was an epidemic of the disease in my

particular locality, and the treatment I may say was confined almost entirely to local irrigation and with resorcin.

In reference to the treatment of typhoid fever, that fever which gives us so much trouble, and which is so often fatal under any treatment, I believe it can be treated more successfully by resorcin than by almost any other remedy. I have used it in a series of fourteen cases, with two deaths. One death occurred from cerebral complication; the other from intestinal perforation. As an antipyretic I believe I have derived more benefit from resorcin, in doses of five to ten grains every three or four hours, than from any other antipyretic. I have made it take the place of quinine and other remedies. These are the only cases in which I have used it extensively. I have not attempted to use it in rubeola or scarlet fever. It commends itself especially in cases of typhoid fever in which there is nausea. We sometimes have gastric complications in this disease and the patient is unable to take scarcely any remedy. I have found that patients would tolerate it in those cases when other remedies would fail. It is a comparatively new remedy, and I personally thank the doctor for presenting it, because I believe it will be adopted by the profession as an antipyretic and also as an aseptic remedy. I have not used it in puerperal affections, but expect to do so when the opportunity presents.

Dr. J. M. Ray, of Louisville, read the Report on Ophthalmology. (See page 4.)

#### DISCUSSION.

Dr. S. G. Dabney, Louisville: I have listened to the paper with a great deal of interest, and I have seen several such cases as have been described—one particularly, a case of glaucoma in a lady from Shelby County. The case was not so acute as the doctor's case. The symptoms were well marked, pupils widely dilated, accompanied with pain. It would have been better if the attack had been more acute and less insidious. The lady did not visit an oculist until the trouble had lasted about a month. I performed iridectomy, and saved what sight was left. Granular diseases of the eye are an index of the general health, and phlyctenular inflammations have occurred as sequelæ of the

**grip.** Some patients who had not had attacks for many years suffered from intense asthenopia.

I would like to call attention to one point mentioned in the paper that is of value, and that is the use of pyoctanin, a new remedy, in the strength of 1 to 1,000. I have found it very valuable in inflammations of the tear-passages, a common form of ocular disturbance, one in which there is no actual organic change in the eye, but which is accompanied by severe headache lasting two or three weeks, and by dizziness induced by the depressed general condition of the patient.

One of the sequelæ is paresis on accommodation, which the doctor called attention to. I have not seen cases in which there was paralysis of the external muscles of the eye following the grip, but saw several patients who had a slight error of refraction, and who found it difficult to use the eyes on near work. It is a well-known fact that an error of refraction, particularly of the slighter forms, is fatal just in proportion to the depressed condition of the general health, so that a great many patients who had previously gone along without observing any ocular disturbance would have their attention first directed to the eyes as the grip left them in this depressed state. The correction of a slight error of refraction would cause relief, and I believe this is an experience which is common with those who practice diseases of the eye.

Dr. Dudley S. Reynolds, Louisville: I have listened with a great deal of pleasure to the doctor's paper, and I desire to call attention to the retinal hyperemia that persists in a great many such cases, coming on simultaneously with a disturbed state of accommodation, and lasting in some instances for months. I have two cases now under observation in which the impaired power of perception is so great that neither of them can undertake to read fine type. This state of hyperemia of the retina was induced by the infectious influenza, and has been so persistent that I feel almost ready to accept as fact that the condition is permanent. The amblyopia is persistent, and will become permanent. The peculiarity I have noted in the cases is this, that while the hyperemic state of the retina is present generally in both eyes,

it is not present in the whole field of vision, the central field of vision being in most cases scarcely at all impaired at first, but subsequently becoming invaded as the disease becomes chronic or as relapses come on. The disturbed state of accommodation in one of my cases is so persistent as to make a near approach to paralysis, making it necessary for the young lady to wear spectacles for distant objects and spectacles for reading, whereas before she used glasses for reading only.

Dr. J. Morrison Ray, Louisville: In reference to the cases that Dr. Dabney referred to, I classed them under the head of asthenopia. Slight paresis of accommodation may be observed in a number of cases of hypermetropia, and patients who had previously worn glasses would present themselves after an attack of the grip and require an increase in strength of the glasses.

Dr. J. B. Marvin, of Louisville, read a paper on *The Modern Methods in the Treatment of Phthisis*. He said:

"Familiarity breeds contempt" is alike true in morals and medicine. Phthisis is so common that we too often look upon it with indifference and an easy tolerance of its frightful ravages. This great "white plague," regardless of station or circumstance, age, sex, or previous condition of servitude, invades alike the homes of the rich and the abodes of the poor. "The pestilence that walketh in darkness, the destruction that wasteth at noonday," the ravages of war, all pale into insignificance when placed by the side of consumption. In nearly every household there is heard "weeping and lamentation, the voice of Rachel weeping and refusing to be comforted because her children are not."

I shall offer no further apology for calling your attention to so trite a subject than to cite the statistics, which indicate that phthisis causes more than one seventh of the entire mortality of the world, one half of all deaths between the ages of fifteen and thirty five, and more than one half of all prison mortality. The defenses so far thrown up against this disease are everywhere weak and inefficient. Koch's discovery of the tubercle bacillus revived hope and kindled enthusiasm, and marks an epoch in



the history of this disease. The promise then given has not yet been realized. Be it said to the honor of the medical profession, that while never utopian it is always expectant, hopeful and persevering, never pessimistic. And if we must still fail, let us fall with our faces to the light. I shall not marshal before you the well-nigh endless list of drugs and medicaments administered in powder, liquid solution, vapor, by the mouth, *per anum*, inhaled, or sprayed internally or externally, hot air and other inhalations, gaseous enemata, and other "fids" equally as absurd, if not as foul smelling; the blood of bullocks quaffed, and now the blood of the malodorous goat hypodermically injected. All have proved their success as uniform failures. The present is the era of hypodermic medication.

I have had no experience with any of these rival methods, save only that of Koch. Let me briefly detail to you my experience with tuberculin, which is limited to twenty cases of pulmonary phthisis and five cases of lupus vulgaris. These cases were treated either in the wards of the City Hospital or at the dispensary of the Kentucky School of Medicine. In selecting cases for this treatment I tried to observe the rules laid down by Koch. I have classed those cases in which there was only slight infiltration, without cavities or evidences of softening and breaking down of tissue, as in the first stage. There was no change in diet or surroundings of these cases, nor was any medicament given during the period in which tuberculin was injected. I started with doses of 1 mg. slowly, and at intervals of several days increased the dose. I attempted always to avoid general reaction, attaching more importance to local reaction. I have had no abscesses nor any bad effects whatever in any case. The injections were given in the back, using by preference a Mayer syringe, which has an asbestos piston.

CASE 1. A., a tramp, aged fifty-five years, applied at dispensary of the Kentucky School of Medicine. First stage, beginning of second. Injected 1 mg. Only appeared two or three times; left. Treatment too brief; no result.

CASE 2. B., aged thirty years, applied for treatment; suitable case; sent to City Hospital; complained of diet, and left after a few

injections. Afterward reapplied for treatment at his home. Declined to treat him under the circumstances. No result.

CASE 3. Mrs. M.: In the second stage, very weak, quick pulse, fever, nausea, and irritable bowels. Both lungs extensively infiltrated; not considered a suitable case, but at her solicitation was injected. She became discouraged and left for home. No improvement.

CASE 4. P., aged fifty-seven years. Coughs badly, very weak, quick pulse, no appetite. Both lungs infiltrated in upper lobes; larynx involved. Received in all thirty injections; largest 25 mg. At first improved markedly in strength, appetite, gained flesh, coughed easier and less frequently, sputum greatly diminished, night-sweats and fever checked; expressed himself as being much better in every respect. Had *la grippe* about April 1st, which greatly prostrated him. Laryngeal trouble increased, deglutition became very painful and the fever increased. Treatment was suspended, though patient always claimed his lungs were cured. Death one month after treatment was suspended.

CASES 5 and 6. Patients at the City Hospital; first stage of the disease. Patients left hospital, so treatment could not be continued. No results.

CASES 7 and 8. Patients at the City Hospital. They claimed improvement in appetite and general condition. Still in hospital; treatment continued at irregular intervals. No improvement to speak of.

CASE 9. Mrs. X., aged thirty-three. Patient at City Hospital since December 29, 1890. Received ten injections; left hospital March 16th. Improvement in cough, night-sweats, appetite; gained flesh and strength; no marked change in physical condition of lungs. (Since paper was read reapplied for admission to City Hospital. Condition much worse, and has since died.)

CASE 10. B., aged twenty, admitted to City Hospital, first stage; received eighteen injections, gained eight pounds. Left hospital; great improvement.

CASE 11. W., aged eighteen, admitted to City Hospital January 13, 1891. First stage; received fifteen injections; maximum 10 mg.; gained eleven pounds, cough, expectoration,

and night-sweats improved. Left hospital March 16th; improved.

CASE 12. L., aged twenty, admitted to City Hospital February 2d. Both lungs extensively infiltrated; large suppurating gland over right clavicle; received eighteen injections. General improvement, still disease progressed in larynx. Dullness and moist râles diminished. Still in hospital. Lately no improvement.

CASE 13. R., aged twenty-three, colored, admitted to City Hospital January 30th. First stage; frequent hemoptysis; received fifteen injections. (Delayed reaction, etc.). Great improvement. At work.

CASE 14. M., aged twenty, colored, City Hospital, profuse night-sweats previous to injections, requiring  $\frac{1}{50}$  gr. atropia sulph. at night to check sweats; loss of flesh, etc., very slight physical signs. Improved greatly. At work.

CASE 15. A., aged nineteen, City Hospital; infiltration of right apex; great improvement, gained nineteen pounds. At work.

CASE 16. R., City Hospital, first stage; great improvement. At work. (Syphilitic.)

CASE 17. R., aged forty-two. Left lung extensively involved; no cavities. Great improvement. At work.

CASE 18. W., aged twenty-eight. Hemorrhages, right lung infiltrated, very weak, fever, etc. Improved, coughs very little, scanty sputa, improved appetite, checked night-sweats.

CASE 19. N., aged twenty-four. First stage, right lung apparently stationary. Improved. No bacilli in sputum. At work.

CASE 20. D., aged sixty. Still under treatment.

*Summary.* Phthisis pulmonum, total number of cases treated, 20. Treatment too brief to be conclusive, 3; improved, 9; unimproved, 7; death, 1.

*Lupus.* Number of cases, 5. McG., nose and face; local reactions and temporary healing, R., face; no decided or permanent improvement, C., nose; S., leg; B., face. If the remedy possesses any value in lupus it is as an adjunct to surgical or other destructive agents.

#### DISCUSSION.

Dr. John A. Ouchterlony, Louisville: I am sure I express the feelings of every one who

has listened to the admirable paper by Dr. Marvin, when I say I was profoundly interested in it. He has given us not only his honest and unbiased opinion on the subject, but a plain statement of facts that appeals strongly to the common sense of the medical profession. We know Dr. Marvin to be a close and most competent observer, and I am sure that we are all indebted to him for the early and energetic measures he took in order to obtain as soon as possible a supply of Koch's lymph.

The whole subject is one of profound interest and of importance, and I only rise (1) to say a few words in discussion of the paper, and (2) to add a few observations of my own. In judging of the effect of treatment in tuberculosis, there are several things needed. First of all, we must have a large number of cases to form a conclusion or general law. We must have our cases under observation for a sufficient length of time.

This is absolutely essential in diseases which run so slow and chronic a course as pulmonary tuberculosis; in other words, we must take into account the natural history of the disease and our observations on that subject, excepting those cases which we call galloping consumption. Its progress is marked by periods of aggravation, by symptoms due to fresh invasion of new lung territory by the tubercular process, and marked by stages of more or less complete quiescence, and so the case goes on year after year. I have under my treatment now cases that I first saw in the year 1864. Now, how can we under such circumstances declare a case cured after having had the patient under observation only for a few weeks? The conclusion is premature, and while it may be correct it is just as likely to be erroneous. Following this line of reasoning, I shall not venture upon drawing conclusions as to the effects of tuberculin. I have treated a number of cases in private practice with the lymph, and I have used it in the University medical clinic. Some of the cases are still under treatment, and I am satisfied that in order to enable me to do with this material what I would like to do I need the whole year; at the same time we are grateful to any one who gives us material to think about



in the mean time until the great mass of the profession shall have had an opportunity to test the powers of this new remedy for themselves.

In some cases I have found no reaction at all. At first I thought the lymph was of no value, that it produced no effect, that there would be no reaction from it, yet the patient would gain flesh and the cough would diminish, expectoration would become less, and the number of tubercle bacilli in the expectoration would become diminished.

One case, a private patient, that was troubled with acute symptoms of laryngitis, was referred to me by Dr. William Cheatham, and was entirely unaffected by treatment. The ordinary remedies applied by specialists in cases of laryngeal inflammation seemed to have no effect whatever. We then put the patient under treatment with Koch's lymph, and the laryngeal symptoms disappeared in a most remarkable manner, both as to rapidity and as to degree of intensity.

I agree with Dr. Marvin that the physical signs are not affected for the better very speedily. In some of my cases I found quite a number of unpleasant symptoms would occur. The patient would be attacked with dyspnea, fever running high; there would be reaction, and the increased respiration and dyspnea might be accounted for in this way; but there was often a marked increase for the time being in the symptoms of pulmonary disturbance.

Dr. John A. Larrabee, Louisville: I have been exceedingly interested in the paper, and for the same reason as expressed by my friend, Dr. Ouchterlony, would compliment this form of report. It is just that form of report which the Society requires upon such a subject as Koch's lymph.

It was my fortune—or may be misfortune—to be in Berlin at the time of the discussion of this question, and when I returned home I was surprised to find (because I did not read the papers abroad very much) the interpretation which had been given to the plain, simple statements made by Professor Robert Koch. I expressed my surprise that the press heralded a cure for consumption, which the professor had never intimated. You are all familiar with the resolute action of the members of the Congress

to get a report of his experiments, which were hardly completed at the time or in such shape as to be reported. No sooner was this done than a report appeared in the London Times, and the New York Times first came out with a headline, "Cure for Consumption!" The result of this was very bad indeed.

I was one of the first to receive a supply of the lymph from Berlin, and began to use it in the treatment of my cases. I have been interviewed without being seen. My cases have been reported through nurses, and some of them by the patients themselves. I mention this simply because the paper we have heard is just what we need. I have treated about twenty-five cases of tuberculosis with tuberculin, and my results compare with those of Dr. Marvin. I could name five patients in whom the treatment was abandoned after the second injection for various reasons. The first case which was injected fell into my hands soon after I returned from Berlin. I got a letter from a gentleman in Indiana, stating that when the lymph arrived in this country he desired to be the first subject. He was taken sick two years ago, and had been confined to bed part of the time. When I received the first consignment, I wrote to him to come to Louisville, and he did. When he was helped into my office by the party that was with him, I shook my head, and after careful examination I said I did not think there was any thing in the world which could relieve him. He was a single man with a great deal of nerve.

He said he was willing to undergo the treatment, because it was only a question of a few weeks when he would die. I then asked that the responsibility be thrown upon him, as he desired to have an experiment performed on him. This was agreed to. I commenced with a small injection. I gave him half a milligram, and then waited a couple of days. No great reaction took place. I do not think the patient had any more fever than he had before the injection. He had evening hectic. I gave one milligram at the second injection, and went on increasing in this manner. He became quite weak at one time, and I was almost determined to abandon the treatment. Careful examination of his lung at this time revealed, together with the physical signs and dyspnea, that a

portion of the left lung had been the subject of pneumonia some five years previous, and was beginning to break down. It became necessary to suspend treatment for a time, and go to work to save his life, if possible. Fortunately the ulceration in the case took place through the bronchial tract, and the patient expectorated a large quantity of matter. I made a microscopical examination of the sputum, and waited a day or two after the injection.

Another curious thing about the case at this time was, the patient drew my attention to a discharging fistula. It appears that eight years ago he was operated upon, and the case was regarded as cured. The fistula undoubtedly healed soon after the discharge of the matter, although the patient did not gain in flesh while in the hospital. He ran down a little and seemed to stay down, although expectoration was greatly diminished, night-sweats stopped, breathing easier, he felt better, and began to recover power enough to walk about. He insisted on going down to the barber shop, walking out doors after thirty-five injections. The last week showed that there were no tubercle bacilli in the sputum, and the sputum was so materially lessened that it was difficult to get any. He then wanted to go home. I discharged him, requesting him to come again in two weeks for another injection. He returned. He had a slight reaction after this injection, but soon became better. He then told me he had contracted to work in a store as clerk for a year, and I advised him to go to Colorado.

All of my cases have been in the second stage of the disease unfortunately. I still have some cases under treatment. One case died, the patient being brought to me with all the physical signs corresponding to an advanced stage of the disease, and the tuberculin treatment was a *dernier ressort*. After the tenth injection was made the patient began to grow worse, or I think it was after the eighth injection; became more feeble, had greater difficulty in breathing, and was removed to his home, where he died twenty days after the last injection. This is the only fatal case so far. There are other patients whom I have treated that I think will die.

Another case was brought to me two weeks ago, a young lady who desired treatment by the

Koch lymph. I pointed out the dangers to her, and ventured to inject half a milligram; and whether by reason of the injection of the tuberculin or not, the following symptoms occurred: She was brought by railroad, therefore she was somewhat fatigued. I waited a couple of days before making an injection. On the second day after the injection the temperature arose to 104°, and she was seized with a sudden, sharp pain in the side; dyspnea became urgent, pulse ran up to 140, very weak and sometimes quite imperceptible at the wrist, and she was in imminent danger. She rallied, however, and the treatment seemed to do her good. She is still at St. Joseph's Infirmary.

I will mention one other case. A patient far advanced in laryngeal phthisis had tried all kinds of treatment, both in this country and in Europe, and in the last stage was determined to try the tuberculin treatment. Reaction was threatened after the injection of one milligram, the patient having considerable suffocation. Examination of the throat showed an elongated swelling. Tracheotomy did not have to be performed. The swelling could be plainly seen by the laryngoscope. Dr. Stucky, who is present, made the examination for me. The patient rallied from this and expectorated a large quantity of pus in which tubercle bacilli were found. The injections were repeated within two or three days, and after the fourth injection the patient was better, and the friends could see an improvement. Supervening upon this, however, came weakness; the patient was no longer able to ride out; symptoms of debility increased rapidly, but expectoration had begun to diminish in spite of this, and her appetite became almost *nil*. Tuberculin was discontinued, and I may say the day I last saw her she was feeling better than she had been previous to any of the injections.

In regard to the formation of abscess I have something peculiar to report. Three of my cases have developed an egg-shaped tumor at the point of puncture, assuming a dusky color, and by reason of that the treatment has been changed. One other case, where I have good reason to believe there is specific disease associated with tuberculosis, had the same thing. The injection was made on the arm in this case,



and the tumor remained for two weeks, when it disappeared. An injection of five milligrams of lymph was then made between the shoulder blades, and in twenty-four hours the site of injection assumed the same proportions as it did before, and remained one week.

In conclusion, I desire to say that I think most of us have injected too large a quantity, and some of us have injected tuberculin far too frequently. It is difficult as yet to tell what cases will bear and stand the treatment best and what will not.

The cases of which I have been a little timorous have recovered so as to go about their work. Four of these cases by the old treatment or no treatment would not have been living, and whatever becomes of them in the future I do not know. I do not regard them as cured, but they are much better than they would have been without Koch's treatment.

Dr. William Bailey, Louisville: I want to commend the paper of Dr. Marvin, and I desire to say to this convention that the statement is an honest one and may be relied upon. In my judgment we have something in Koch's discovery that has come to stay. It is not in any sense to be compared with the Bergeon fad, which consists of the introduction of gas into the bowel. I think injustice is likely to be done to Koch's work by claims being made that he does not make himself. The remedy is limited to certain cases, and I think this can be recognized as proper and true when we consider the manner in which the remedy is supposed to perform its action. I believe it is claimed that it has no influence upon the tubercle bacilli, but that it destroys tubercular tissue. The remedy is beneficial in disposing of tubercular tissue, hence we can see how it is not applicable to cases of extensive lung involvement. While it has a limited area, and may be used externally in a disease like lupus, we can see how nature throws it off; but we have an extensive lung involvement, and if there be a remedy capable of destroying tubercular tissue, to say nothing of the tubercular bacilli, and nature can not dispose of it, evil must come and not good. It is therefore necessary to limit the application of the remedy to the incipient cases. I express the confidence

that we have something here that will make the name of Koch immortal.

Dr. Dudley S. Reynolds, Louisville: I injected a case of lupus of the nose with Koch's lymph on the 27th of January. For twelve hours after the injection of a single milligram there was no decided reaction. Occasionally the temperature had been reduced as much as one degree below the normal standard, and in the next hour perhaps it had gone a degree and a half above. At the expiration of twenty hours from the date of the injection the temperature was observed to be  $104^{\circ}$ , and said to have gone a degree higher an hour previously. The patient suffered an enormous enlargement of the nose, lips, and face, eyelids closed. She was covered all over with a bright-red papular eruption, and remained prostrated from the injection for several days. At the end of five days I gave her another injection of the same proportion. She had in fourteen hours after that injection a temperature of  $105^{\circ}$ , reacted quickly, on the second day was up and about. No great increase of swelling took place. After a second injection a brown crust which resulted from the first injection still remained intact, the nostril being occluded by it. On the eighth day from the second injection a third was administered, the patient in the mean time having recovered from the effects of the last treatment. The brown crust was thrown off during the febrile excitement following the injection, the temperature going to  $105^{\circ}$ . The swelling which had followed previous injections was not visible at this time. The papular eruption which appeared faded away in two or three days. The patient, experiencing great debility from the third injection, was permitted to go ten days before the fourth was administered. The same high temperature prevailed, remaining but a single hour. Reaction was entirely over in twenty-four hours from date of injection; patient allowed to go two weeks before another injection, lupus surface having cicatrized. There has been no return of the deposition, nor no disposition toward breaking down of the lupus tissue; no local irritation at the site of injection, and no evidence whatever of any local reaction at any point except in one of the cervical lymphatic glands on the right side. After

the first injection they became enlarged and tender. Subsequently after each injection this gland became tender and painful and had gradually diminished in size. A fifth injection was made, when the gland showed no signs of its presence, with no manifestation of local reaction. Last Monday I gave another injection as a test, using at that time five milligrams of the tuberculin. In all of my injections they were made in the left arm above the elbow.

Dr. J. A. Ouchterlony, Louisville: I wish to go on record in connection with this subject to this effect, that the use of Koch's lymph in cases of advanced tuberculosis, where the patient's vitality is entirely exhausted, is harmful; that the patient is bound to die, and under such circumstances the use of the tuberculin is an injustice to the great originator of this treatment.

Dr. J. B. Marvin, Louisville: I purposely left the subject open and expressed no conviction in regard to tuberculin. I think the time has not come when any man can positively express a conviction in regard to it, and when I am asked what I think about it I tell people that I do not know any thing about it. It is still in an experimental stage. I think we do not know the dosage nor the frequency with which the doses should be repeated, and that we are only getting glimpses in regard to the matter. It is preposterous to talk about cures so shortly after its use.

After four months' experience with the remedy I have been fully persuaded that we do not wish to get this so-called general reaction that the papers talk about. It seems to me the height of nonsense to give a patient with fever, wasting night-sweats, the additional discomfort by increasing fever and pain by this remedy. My idea has been to give it in small doses and watch the local reaction, and utterly disregard or try not to get any general reaction. I seem to have been misunderstood, hence I make that remark. I do believe the remedy is of very limited use. I think that it should be confined to hospitals or infirmaries, or put into the hands of men where it can be watched. I do not think we have made sufficient progress with it to draw conclusions. It is easy to go with the multitude, and in the present reaction

against tuberculin we are apt to overlook any good there may be in the agent. At present the remedy is practically dead.

Dr. Robert C. Kenner read a paper entitled *The Treatment of Acute Dysentery*. He reviewed at length the literature of the subject. He believes the treatment by saline cathartics is not capable of shortening the disease, and is therefore valueless. He thinks the reputation they sustain is due to two misconceptions. The first is that mild cases under the saline treatment would have made equally good recoveries without any treatment at all. The second is that the favor which they originally obtained was due to a comparison of that treatment with the old treatments by blood-letting and mercurials, which prolonged the disease instead of curing it, and made the mortality great.

Relative to the opium treatment, he thinks opium is only valuable as a palliative, but it should not be regarded as a sheet-anchor remedy; that it does not cure the disease nor relieve the complications for a long period of time; that the stupefaction induced by it is harmful.

The treatment by enemata of the nitrate of silver and astringents he thinks may sometimes do good, but as yet the limitations of their usefulness have not been defined, and they are often accompanied by severe pain. The memory of some of the painful issues of cases in which he used this remedy is by no means pleasant.

He favors the ipecac treatment, which found so much favor in the hands of McLean, Dock-er, Ewart, and other distinguished physicians. He begins the treatment by a purge of sulphate of magnesia. In six hours thereafter, or as soon as the sulphate of magnesia has produced free feculant discharge, he gives, three hours after abstinence from food and drink, one fourth to one half grain morphine hypodermically, and then gives by the mouth thirty grains of ipecac in enough syrup of orange peel to cover its taste. This is given again in from eight to twelve hours thereafter, as the symptoms seem to demand, and until the cure is fairly under way. By this treatment he has cured ninety per cent of sixty cases in an average of twelve days.



He estimates the value of all remedies which are meant to be curative by their power to abridge the duration of a disease. The ipecac treatment in his and in the hands of others has brought about results which nothing else has ever effected, and therefore stands the only treatment having on its side the weight of clinical test and historical endurance.

## DISCUSSION.

Dr. J. F. Purdom, Mitchellsburg: I wish to make a few remarks with reference to tenesmus. Instead of using cold enemata I have used early in the case hot enemata, which have been in my hands, above any thing else, the most useful remedy for that symptom.

Dr. W. C. Webb, Bryantsville: In giving the definition of a remedy as curing disease, it is that which cuts short disease, convalescence immediately setting in. I believe that dysentery belongs to that class of diseases which is self-limited, and no remedy which you can use is going to abridge that time. Pneumonia, typhoid fever, dysentery, and some other diseases are self-limited, and all the remedies which you may use will not cut short the disease. If you will consider the pathology of dysentery you will at once see that you can not cut short this disease by any remedy you may use, and the pathology of it is ulceration of the bowels, and it will take time to heal over. If you have an ulcer or wound on your hand you want to give it rest, which is the prime feature in the treatment. How are you going to secure rest of this ulceration of the intestinal canal? Remember that the vermicular motion of the intestine is augmented in this disease, owing to irritation, and all remedies which you give by the mouth tend to increase vermicular motion, and consequently the ulceration is kept up by constant irritation; and if the hypodermic syringe is worth any thing at all, it is in the treatment of this disease. The use of morphine controls pain, and paralyzes the spasmodic action of the intestinal canal, and gives rest to the diseased part. You thereby enable nature to throw off the disease and you relieve suffering, and this is the best plan that I have hit upon in the treatment of this affection.

Dr. T. B. Greenley: I have had no experi-

ence with large doses of ipecac, but it has been in vogue for a long time. I have been afraid of producing vomiting by it. I agree with Dr. Purdom, who spoke of the excellent effects of warm injections in the acute stage. Where we have a good deal of tormina and tenesmus it has a most admirable and soothing effect. In the subacute form I derive benefit from the bichloride of mercury in solution, given every three or four hours—about the twenty-fifth or thirtieth of a grain. In some cases we have to resort to morphine, which is better than opium or laudanum. I find that hypodermic injections of a sufficient quantity of morphine have a very excellent effect. It procures rest, and gives patients a long interval of repose between the actions of the bowels. I have also in the diarrhetic stage of dysentery derived beneficial effects from resorcin, repeated at intervals of about four hours.

## CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, April 14, 1891, Dr. T. P. Satterwhite, President, in the chair.

Dr. W. H. Wathen: I would not exhibit this pathological specimen this evening, were it not that I think there are some few interesting points connected with it that are not always observed in those cases of laparotomy for the removal of the small ovaries and tubes. I do not think such cases are of any special advantage, unless they illustrate some particular point, which I want to bring out in this report.

This woman is about twenty-five years of age, has given birth to one child, has probably had one abortion. My first knowledge of her was about a year ago, when she was under the treatment of a medical friend, she having a profuse hemorrhage that resisted all his treatment for a considerable time, the woman's condition becoming rather dangerous. Finally the hemorrhage ceased and she got out of the institution, went out of the city to her home, but from that time up to the present she has been an invalid. Just how much of an invalid she was before that time I am unable to say. Her trouble since then has been great nervousness, pain down in the pelvic regions, somewhat severe upon the left side, increasing in severity after

any unusual exertion. In examination you could detect a uterus very little enlarged, a little turned to one side, and the broad ligaments thickened. I operated on her six days ago this afternoon, and removed the specimen that I show you. I found the ovaries and tubes upon each side firmly bound down to the peritoneum posteriorly and also to the rectum, but there was no indurated inflammatory deposit whatever in the pelvis. There were these thread-like adhesions in every direction, with the end of each tube firmly adherent at each side, with the fimbria entirely destroyed. When the adhesions were all separated and the structures brought down into the abdominal wound, the tubes were found to be very little enlarged, with the exception of the fimbriated extremity, which had been destroyed. The tubes were, as far as the eye could see, comparatively in a healthy state; no pus, no water, nor any thing of the sort in the tube; the ovaries, one of them comparatively healthy, the other one with half a dozen small cysts which would not have necessitated removal of the ovaries had there not been other conditions. The ovaries and tubes were removed, the uterus then separated from its adhesions. Every thing was adjusted, the abdomen cleansed, the abdominal wall closed, with small drainage-tube, which was permitted to remain in three days, because of the discharge of a small quantity of bloody serum showing at each time the tube was mopped. The tube was then removed. The patient has made good progress up to the present time.

The character of the adhesions is what I want to especially call attention to. They can be taken out and you can see them yourself. There is not a particle without adhesions. But there is not a particle of inflammatory induration. The tubes were perfectly healthy when removed. I removed these specimens because so many adhesions being thrown out I felt sure if I did not remove them the adhesions would continue and the woman would suffer from the same trouble. In the second place, as the fimbria were all destroyed, these tubes would probably be useless, and the correct thing would be to remove the tubes and ovaries. One point in regard to the pathology of this case. You

know we are of late led to believe by some enthusiasts in pelvic work that nearly every case of pelvic inflammation is gonorrheal in its origin, pyosalpinx, or salpingitis. I do not believe that this woman had any inflammation at all of the fallopian tubes, salpingitis, specific or otherwise, or those tubes would not have been in the healthy condition they were found to be. I believe that this inflammation in the pelvis is caused not by inflammation of the tubes themselves but by some other cause. I am not prepared to say that the inflammation in the pelvis did not reach there through the tubes without causing inflammation of the tubes. Dr. Weidener is making a microscopical examination to see if he can detect any abnormal character of the growths.

Dr. F. Leber: Was there any retroversion?

Dr. Wathen: No; it was pulled up high. The adhesions were running over from the rectum everywhere.

Dr. Leber: The tubes are thickened. There was unquestionably local peritonitis at one time, which caused the condition of the parts mentioned. Now the question is, how long since? The adhesions are not new, they are old. The lumen of the tube is enlarged in both of them. You do not get any such lumen in a normal tube. The ovaries are but slightly if any enlarged. I think the treatment was proper and that they ought to be removed.

Dr. T. P. Satterwhite: If on opening the abdominal cavity you found no disease of the ovary or of the tube, but simply adhesions as you describe them here, would your course be to remove them simply on account of the adhesions?

Dr. Wathen: As a general thing, with ordinary amount of adhesions, with perfectly healthy conditions of the tube, the fimbriated extremities not destroyed, I should leave the ovaries and tubes in. Obstructed tubes are never healthy.

Dr. Satterwhite: Was there much hemorrhage following the breaking up of the adhesions?

Dr. Wathen: No; but enough to indicate the advisability of the use of a drainage-tube, and the wisdom was made manifest by the hemorrhage that continued for two days, probably



every hour as much as a dram or more. I used a straight tube, very small, about the size of a common lead pencil.

I think there are too many operations done for pelvic work. I know I have done operations in the past that I would not do to-day, and there seems to be a good deal of a craze to do these operations, and I am going to get more and more conservative in doing them. So if I operate and find that the structures are in better condition than I expected to find them, I shall in the future leave one or both sides in the pelvis, because these simple operations are followed by unsatisfactory results. I have seen cases operated upon a number of times where operation was not indicated. Again, if patient recovers and even goes out into the world feeling much better than before the operation, we do not know what twelve months is going to bring forth; and there are many cases that have been operated upon for reflex trouble, nervous general condition, where patients are in a much worse nervous condition than before the operation, and also the operation has caused a degree of pelvic adhesions that will last as long as that woman lives. But not only that, we find very frequently in secondary operations upon these cases adhesions of the intestines, and very often just the same character of adhesions that you find in this specimen. I noticed some time ago, while in New York, Dr. Coe did an operation upon a woman for the third time. The first operation Dr. Coe did, the second Dr. Polk, and the third, the one I witnessed, Dr. Coe did. It was certainly a very beautiful operation. They were men of great experience. In that woman, the third time, he found a little nodular indurated mass at the cornua of the uterus which he removed. They thought that would relieve her. He looked further; pulled up the intestines, and there found quite a number of very firm bands holding the intestines together, all of which he separated and then closed up the abdominal wound. These intestinal adhesions are often followed by the severest pain. We who are doing it should study carefully and see if we are not doing too much. Now how are we to prevent these adhesions? I believe two of the most frequent causes of pelvic adhesions fol-

lowing laparotomy work are the use of antiseptics in the operation. I believe if you will do absolutely clean abdominal surgery and do not use antiseptics you will not have as many adhesions following as if you use them.

Dr. W. O. Roberts: Last Saturday night a young man twenty-four years of age, working in the railroad yards, got his thigh, just above the knee, caught between the couplings of an engine and the car. He was taken to the infirmary, where I saw him about an hour after the accident. I found him with two small openings, one of the knee, and one of the outer side of the thigh about three inches above the joint. Each one of these openings was about the caliber of an ordinary lead pencil. Examination revealed compound fracture of the thigh. He was chloroformed and these enlarged. My finger found quite a number of fragments. Those which were perfectly loose I removed. The fracture extended into the knee-joint. These openings were enlarged to two and a half inches. There was a considerable amount of clotted blood in the wound, which was cleaned out as thoroughly as it was possible. I ran a stream of bichloride solution (1-5,000) through the limb, until it came out perfectly clear. I then introduced into these openings a piece of iodoform gauze, put the limb into an antiseptic dressing, and over it placed plaster of Paris. The patient was put to bed, and the following day the dressing was found to be pretty well saturated with a bloody discharge. Instead of cutting a window, as is the usual custom in these cases, I removed the entire dressing. I found, upon removing it, that the gauze, which extended from the foot to the groin, was thoroughly saturated. There was, at the time of removal, no further discharge from the opening, so I withdrew the gauze and passed again a hot solution of the bichloride fluid to see if any clots could be washed out. It came out almost clear. The limb was then put up as before, except the gauze was not introduced into the wound. The patient has gone along so far without any bad symptoms whatever. I do not intend to make any change in the dressing now, unless there is evidence of fever. I was governed entirely by the temperature. There has been no swell-

ing of the foot. The plaster of Paris bandage extends from the ankle to the groin.

In connection with this case I would like to mention three others, which have recently come under my observation. One was a man thirty-eight years of age, a very large, robust looking fellow, who received a compound fracture by the fall of a piece of steel on his leg. He is foreman in the ship-yard at Jeffersonville. His leg was broken just two and a half inches above the ankle. The wound was in the anterior part of the joint. The accident occurred in the afternoon between four and five o'clock. He was seen by the local surgeons, and they removed several fragments of bone. A temporary dressing was applied, and I was summoned between eight and nine o'clock that night. The question was as to whether or not the limb should be amputated. The circulation in the foot was perfect, and there had been comparatively little hemorrhage. The wound, which was a ragged one, was about an inch and a half long, and three quarters of an inch in width. I examined him without chloroform, as he preferred it. I found the bone broken in three fragments, but there were no loose pieces—those had been removed before I saw him. I decided there was an excellent chance of saving the limb, under antiseptic surgery, so I washed it out thoroughly with bichloride, made no attempt to close it up, and it was put up under strictly antiseptic precautions. This man has made an excellent recovery, without at any time his temperature being over 100°. This was on the second day. The first dressing was not removed for ten days after receipt of injury, and then the wound seemed to be two thirds healed. There was thorough saturation of the gauze for a foot or more up the limb, so that the drainage was perfect.

Now, in another case a man sixty-four years of age, a teamster, an employe of the Street Railway Company, was thrown from his wagon out on Twelfth Street, from the bad condition of that street. He had in his wagon one of these turn-tables, and in attempting to cross the street the wagon turned over and threw the turn-table on his leg. He had a compound Potts' fracture. There was an opening on the inner side of the leg, extending from the ankle

three inches up. The tibia protruded. The fibula was broken and the external malleolus was broken off and quite loose, so I removed it. No attempt was made in this case to bring the wound together. It was an ugly, ragged wound. No drainage-tube was applied. Nothing was introduced into the wound, but the limb was put up with antiseptic dressing, covered by plaster of Paris. This dressing was not removed for ten days after the receipt of the wound, and I found the limb in as good condition as that of the second case which I reported. The man has gone on six weeks since receipt of injury. I dressed it two days ago. There has been no suppuration in this case whatever, and wound has almost entirely healed. There has been no sign of inflammation or swelling. In this last case there was some dirt, but in the others there was not.

These cases are a few of a great many which I have had in the last year or two. Two, I think, have been reported to this Society, in which there was compound fracture of both limbs. I had a number of cases not quite so severe. The treatment has been the same as in these three I have just reported. Where the wound is large no attempt is made to close it, and where wound is small it is enlarged, so there will be no obstruction to drainage. This is especially important where the fracture is the result of direct violence, in which there must be a considerable amount of contusion, and in none of these cases have I used a drainage-tube.

Dr. J. M. Krim: Is it not possible that there might be some loose bone? I saw a case yesterday where a man who was injured by a kick had been taken to the hospital some days since. The limb was entirely closed; nothing could be seen. I saw him yesterday, and found some little tenderness just above the seat of the injury, and by running my finger along found something loose, and on opening found a little bone.

Dr. Geo. W. Griffiths: In accidents of that kind, where the opening is large, I think it well to bring the upper portion of the opening together, as it gives the broken fragments more support. I believe in enlarging small wounds, and I believe in thorough antiseptic precau-



tions. In the majority of these cases they are already septic before we get hold of them, by dirt, etc., being ground under the wheels. The cases reported are certainly remarkable. I am not much in favor of drainage-tubes, and I rarely use them. I prefer the iodoform gauze. In all large openings I think it better to bring portions of the wound together. It aids in healing soft tissue and supports fragments of fractured bone. I am a very strong advocate of antiseptic treatment of wounds, and have been for several years back, ever since its first introduction. Even in midwifery all manipulations are done after my hand has gone through antiseptic treatment. I certainly congratulate Dr. Roberts upon his success in these cases.

I want to say further, I do not think you can rely upon temperature altogether; have had cases where the temperature was normal, and yet suppuration was going on.

Dr. F. Leber: I agree in a measure with Dr. Roberts. I want thorough drainage. In these large wounds communicating with fractured parts I use plaster of Paris. I believe in cutting a window so that you can see the exact coaptation of the wound. Then you can get at it from time to time without removing the dressing. It is a safe rule, when dressings become saturated they ought to be removed. I think Dr. Roberts has treated these cases admirably. If the dressings are not saturated I leave them on for some time, but in cases of extensive lacerations in conjunction with plaster of Paris I use iron hoops, which enables you to get at the dressing much better.

Dr. Krim: I want to ask, if the soft parts are lacerated a good deal, do you trim them off?

Dr. Roberts: You cut them off.

Dr. W. H. Wathen: The cases are very interesting, and the contrast between these and the poor results that were formerly obtained in this line of surgery can not but impress upon us the great value of antiseptics. But in using antiseptics the great thing is cleanliness conjoined with antisepsis. In many instances antiseptics are used to take the place of cleanliness. For example, a surgeon will dress a wound or operate with dirty hands and dirty instruments passed through a solution of bichloride of mercury or carbolic acid. This will not get the

desired results. Cleanliness must be conjoined with antisepsis, otherwise antisepsis will amount to nothing.

Dr. Geo. W. Griffiths: A matter of importance in the use of antiseptic solutions in wound treatment is the character of water used. In several instances I have been compelled to dissolve the bichloride tablets, which I carry in my case, in pump water or water from wells. The results were excellent, but some experiments made at my request show that a much larger proportion of bichloride is necessary in hard water than in distilled water, which I use in surgical operations by preference.

Dr. T. P. Satterwhite: I wish to report a case of injury to the ankle. A buggy wheel had separated the tibia from the astragalus. You could see into the joint—a perfectly clean wound. The wound healed without suppuration, and I think he has as good a joint now as he ever had. I did not use a tube; used antiseptics. My guide in the matter was the temperature and pulse. Dr. Griffiths stated that he has known very serious results to take place when there was no elevation of temperature. Have any of you seen that result?

Dr. Roberts: Have only seen it in connection with abdominal surgery.

Dr. J. W. Guest (by invitation): I wish to emphasize Dr. Griffiths' remarks as to the unreliability of temperature as a guide in cases of compound fracture. Last August I saw a case of compound fracture in the care of another surgeon. It was a case of compound fracture of the tarsus from direct violence. It was put up with thorough antisepsis, and placed in a plaster of Paris dressing. In accordance with the custom of the attending surgeon, the plaster dressing was allowed to remain until union was firm, unless inflammatory symptoms set in. The temperature was taken regularly every day, it never going higher than 99.2°. When the dressing was removed at the end of three weeks, profuse suppuration was found to have occurred, with necrosis of the tarsus. The entire foot was in a miserable condition, and, although every effort was made to save it, at the end of six weeks after removal of the plaster dressing (nine weeks from the accident) the foot was amputated. I think it is a very im-

portant point that Dr. Griffiths has evolved from his large experience, and should be firmly impressed upon the professional mind, viz., that it will not do to rely upon the temperature curve as an infallible guide in treating compound fractures in fixed dressings. The comfort of the patient and his general condition are far more reliable.

Dr. T. P. Satterwhite: Sometime since I saw a case of compound fracture of the thigh, which was remarkable in its course and fatal in termination. When I was called to the patient there was very little hemorrhage. I made a careful examination of the wound in the soft parts, which readily admitted my finger, and there was no evidence either of bleeding or effusion of blood into the soft parts. I dressed the limb with a simple dressing, placing compresses upon the sides of the limb. He seemed to be doing well until the tenth day, when suddenly hemorrhage supervened, and in a few minutes he bled to death.

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### Abstracts and Selections.

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**THE TREATMENT OF HABITUAL CONSTIPATION IN CHILDREN.**—The diseases of children do not always meet with scientific attention. Constipation, in particular, is treated in them with little ceremony; yet the imperfect digestion, of which it is a result, is in children so pre-eminently the origin of ill health that one can not bestow upon it too much consideration, if for no other reason than that patients of this tender age may receive kind and considerate treatment. If the following observations should not command unqualified assent, they may yet serve to bring forward some interesting questions.

One of the cases narrated is an example of success with unassisted physiological dieting. The other shows the difficulty of obtaining good results so long as the cause is unremoved.

The first case was that of a little boy four years and six months old, the only child of persons of good position. He was reared at the breast for the usual period by a wet nurse. Since weaning he had led, for a child, a somewhat trying life, having accompanied his mother on voyages undertaken for her health to Australia, the Mediterranean, and various parts of the continent. Upon the whole, he had stood this constant change of climate and diet well, developing into a sturdy little boy. He had

not, however, been without some symptoms of delicacy, namely, a certain liability to take cold, inability to bear a cold bath, dampness and coldness of the hands and feet, slight nocturnal attacks of spasmodic croup, especially on ship-board, frequent sore throats with enlargement of the tonsils, considerable trouble with constipation, and thread worms. The particular symptom for which he came under my notice was a lassitude which used to come on suddenly while he was out for a walk, making him cry from pain in his stomach, and ask to be taken home. At home he used to enjoy himself, and fed and slept well.

Upon examination there was no appearance of rickets, but he was rather pale, and his muscles flabby. His skin was too thick, pinching up into thick folds, though not exactly fat. The pharynx was pale and full of secretion, and the tonsils hypertrophied, though not inflamed. The abdomen was much too large, measuring twenty-four inches, while the chest was nineteen, so that ready-made clothes would not fit him without much enlargement round the waist.

The cause of his ill health appeared to me to be this: His mother, though a tender and affectionate woman, was inexperienced, and yet by her wandering life removed from the opportunity of being instructed by her elders. She was also one of those persons who prefer what they see in print to very much wiser advice delivered orally, and had in consequence guided herself in bringing up her child by one of those popular mother's manuals which whatever their merits, do not meet the conditions of every single case. The result was that the child was being brought up in a pedantic manner. He was overclothed with pure wool clothing, subjected to cold baths, although they left him very miserable, and given a diet which, all things considered, was not nearly good enough. His breakfast consisted of a plain boiled egg or oatmeal porridge, bread very thinly spread with butter, and hot milk and water. At eleven he had a cup of beef tea and some dry toast. For dinner he had a small amount of plain boiled or roasted meat, fat and brown cut off according to the instructions of the manual, or else fish given without sauce, unlimited potatoes, boiled and mashed, and so-called plain puddings, that is, flour or starch made up with as little as possible of any thing else. Sometimes fig puddings and stewed prunes were substituted to relieve the constipation, for which purpose he also had brown bread occasionally. "Tea" consisted of bread and butter as before, with milk and water. The currants; again, by direction of the book, were carefully picked out of any cake or buns which he might



have; and he had never tasted a sweetmeat of any kind until I myself gave him a chocolate.

It may be asked, what fault could be found with this diet? Simply this, that it did not suit the boy, and was persevered with although he could not digest it. Had he thriven on it, one would have said nothing. Much medical attendance had been given to his various derangements. I found nothing to criticise, except that one practitioner had ordered glycerine and tannic acid to be applied to the tonsils without further directions. The application had consequently been continued religiously for more than a year, rather increasing the condition. The question had now been raised of excising them. On the whole, I found sufficient cause for his ailments in a faulty bringing up.

I therefore set to work to reform it as follows: The amount of clothing was reduced considerably. What he wore really impeded his exercise. Next, the baths were made warmer until they left him comfortable. Then I altered the feeding. For breakfast he had (and I was in a position to see that he had) some bacon fried or cold, fish, sardines in oil, or eggs cooked in any palatable manner, not merely boiled. Bread or toast was cut thin and freely buttered. On the last piece he was allowed to have jam. His drink was milk and water as before. Eleven o'clock lunch was altered to bread and butter and milk and water. At dinner the fat and brown were on no account to be cut off from his meat unless he wished it. When there was fish, it was accompanied with sauce. Vegetables were restricted in quantity, and green ones served among them. Pudding was also limited, but improved in quality, with the addition of custards and stewed fruit to the list. "Tea," like lunch, was bread and butter with milk and water, supplemented by cooked fruit of some kind.

It will be seen at what I was aiming with this diet. I purposely exaggerated the amount of albuminoids and fat, while I cut down the flour and starch. I also put before him every tasty thing I could devise. What he fancied he had, and what he disliked he left. Meals had always been a scene of tears on one side and preachings and argument on the other. Now they were rather festive occasions. It was a very interesting physiological experiment.

The result of this reform was that at the end of a month he was well. His tonsils, somewhat to my surprise, had returned to the normal size. His bowels were perfectly regular. His color was good. Though somewhat thinner, he was considerably stronger, so that there were no more complaints about being tired, and the girth of the abdomen had diminished between

two and three inches, and afterward went down somewhat more, so that ordinary ready-made suits of clothes fitted him. No medicine was given throughout the attendance. Except for an attack of measles he has since continued perfectly well, bidding fair to outgrow all delicacy and to compensate considerably for expenditure in his diet by the saving in medical attendance. Money and good will had never been wanting, so that the reforms which I initiated were cheerfully continued. His mother perceived that she had been giving him country boy's food without a country boy's constitution. I suspect that many practitioners have cases like this. I hope that they will try to treat their next one accordingly.

In the second case the possibilities were limited. A little while ago a girl of nine years old was brought to me by her mother, the mother being teacher in a charity school for girls, and the child, her only daughter, gratuitously maintained in the same school. The chief subject of complaint was a violent cough, most troublesome at night, without expectoration; in fact, a throat cough of the usual character. But the child also suffered from constipation, chilblains, and bad circulation in the hands and feet.

On examination the tonsils were found enlarged, but not congested or inflamed. The abdomen, like that of the first patient, was excessively protuberant, full, and doughy. Although her cheeks were round and red, so that in her clothes she looked fairly healthy, when stripped one saw that she was poorly developed. The muscles were meager and soft, and her skin of that thick and coarse nature that a fold of it pinched up measured perhaps half an inch thick, a very characteristic test of poor condition. Had the skin been removed, the rest would have appeared miserable.

I was able to learn from the mother with great exactness the sort of life that was led at this school, which appeared to me one, like many others, where the bodily welfare is lost sight of in the zeal for moral development; that is to say, that while the children were put to sleep in cold dormitories, and sat most of the day learning lessons and sewing and such like things, and were only exercised by walking two and two about the streets of London, their food was of the most insufficient description. Breakfast consisted of bread and dripping, treacle, in the mother's words; when the children tired of the dripping, with skim milk and water to drink. The same for tea. Dinner on Sundays consisted of stewed shin of beef, on Wednesdays of stewed mutton, both with vegetables; on other days nothing but suet pudding, the allowance of suet only half an ounce per head.

Throughout the previous winter she had suffered in the same way, and had been only "kept going," as her mother phrased it, by cod-liver oil.

Not being able to interfere with the diet in the institution, I did not anticipate great success in treatment; and although medicine afforded some relief, I felt bound to advise that the best thing for the child was for both mother and daughter to leave the institution when convenient.

I do not know if I have succeeded in depicting the pathological condition present in these cases. I cite them because they happen to be the clearest instances at hand of a state of things very prevalent in children, which can be distinguished in various degrees of severity by any careful observer, and which finds a place in most clinical descriptions of disease in children, though under various names. It appears to me that these children were on the brink of developing that condition known as scrofula, meaning by the term a peculiar *facies* which precedes a predisposition to tubercle, and is the outward sign of a defectively developed constitution. I consider it of service to group such extreme cases with those of minor severity when seeking to discover the causes which produce them, but I hope that it will not therefore be thought that I am basing my arguments on too narrow a foundation.

The fault in these cases was that the patients did not agree with their diet. The defect lay in their digestion. As the defect in their digestion issued in constipation, I discuss them under that heading. But one might have regarded them from other points of view. Most persons would have treated the condition with aperient medicines. Certainly the laity would have done so. For this reason I prefer to discuss them in such a manner as to bring together various pathological conditions which in practice would medically be treated as one.

The mistake in feeding these children appears to me twofold; first, that being dwellers in towns they were fed as if they were in the country; secondly, that being children they were fed like adults. These are the two great errors in feeding children. When either of them is committed the child falls ill; when neither of them is committed the child remains well. Let us notice them separately.

Many millions of our fellow creatures subsist in perfect health all over the world at agricultural occupations upon a diet consisting of milk and its products, grain in its forms of flour and meal, a few vegetables, mostly potatoes, and a very little meat. Uninstructed persons seeing this exclaim, What better food could we find for our children! They forget that this

diet is adopted from necessity, being composed of cheap and least salable articles of produce, and those best suited to the limited culinary apparatus of the peasant. They forget that those who feed upon it are a picked population, many of whose children die, and the weakly of whom drift off to the better food of the towns. They also forget that the work produced upon this diet is slow and often indolent, and by no means up to the standard of towns. And finally they forget that there are in the country certain stimulants to digestion in the shape of sunlight and fresh air and hard bodily labor, which develop what Horace terms the *dura messorum ilia*.

Nothing is more certain nor yet more generally overlooked than that country people eat such food from necessity and not from choice, so that potatoes, buttermilk, and porridge give place to bread and meat and better vegetables when they can be obtained, which is but seldom. How great an error is committed by those who adopt such a diet when they could get better, and how thoughtless the person who expects to thrive upon it without its natural accompaniments!

The second defect is this, to give adult's food to a child. Bread may be the staff of grown-up life, but milk is the food of infancy, and the food of these ages is different because the work to be done upon it is different. A man has to work and a child to grow. The former serves others, the latter himself. The child is therefore limited in his exertions by pleasure, but the man by his bodily exhaustion. The life of a child therefore requires much more nerve food than that of a man. In what that consists we can not exactly say, but it is represented by a diet of much higher quality than that which is sufficient for a man. A baby lives in its mother's arms without any exercise for a twelve-month. What man could do the same? Such existence signifies high vitality, and high vitality implies high diet. Therefore we find that milk is composed of costly elements.

We see the same thing throughout the animal kingdom. All young mammals are nourished on milk. Nearly all young birds are fed on animal food. They are hatched in the spring, when such food can be obtained. When the young mammals leave the breast they receive the daintiest morsels. The young *herbivora* eat the tenderest shoots, and the young *carnivora* are fed with the flesh of other young animals. One could parallel this in all the lower classes of the animal world.

No energy is wasted in assimilating milk. It needs no cookery, no mastication, no mixture with saliva, and little gastric digestion. It is therefore the food on which we fall back



in sickness when matters return to the infantile condition. The newborn child or other young animal has no apparatus developed for dealing with food that is not ready for digestion. The change from milk or other young animal's food is consequently regulated by the development of this apparatus. In man this alteration takes twenty-five years, which is too much for most people's patience, and so we find the children put upon adult diet prematurely.

The first teeth cut by any young animal are the incisors, because the first food taken needs only to be divided, cropped, or nibbled. It is of a nature to pass with little treatment by the undeveloped stomach into the intestine. The molars are added as they are wanted, namely, to discuss the increasing quantity of carbonaceous and other food required for adult life. The same thing is seen with the bills and gizzards of birds, and so down the scale of creation.

Now what will happen when adult food is presented to an alimentary canal that is mostly intestine, with but little teeth and stomach? What there is will try to do the work. Irritation and hypertrophy of the overtaxed part, followed by paralysis and possibly atrophy, will be the consequence. The diseases of the alimentary canal in the young child are therefore always diseases of the intestine, because that is the part in the fullest activity, and therefore always in danger of being overtaxed.

In what form does hypertrophy of the intestine show itself? By the corpulence, which was a feature in both my cases. If an intestine increases in length and breadth it requires a longer mesentery. We could not attach the intestine of a man to the mesentery of a boy. The whole intestinal packet consequently enlarges, and the abdomen protrudes in the only direction in which it can protrude, that is, forward. Corpulence is therefore observed in any poorly fed subject who lives upon a diet which taxes his intestine instead of his stomach, as in starving populations among whom farinaceous diet is the last to fail.—*J. B. Nias, M. B., M. R. C. P., London Practitioner.*

**INTRA-PERITONEAL WOUND OF THE BLADDER—RECOVERY.**—Dr. Rosenbaum recently communicated to the Caucasian Medical Society an account of an interesting case of a dagger wound of the abdomen, which penetrated the bladder from its peritoneal surface, the patient recovering. Wounds of this character are well known to be exceedingly dangerous, and Dr. Rosenbaum had not met with any case in medical literature in which recovery had occurred. The patient was a man of twenty-nine years of age, who was wounded on December

12th at 8 o'clock in the evening by a dagger thrust in the lower part of the abdomen. He felt at the time very severe pain, but there was little hemorrhage. Very soon he found the intestines protruding from the wound, and attempted to prevent their extrusion by pressing a handkerchief against them with his hand. He remembers that he then felt a great desire to pass urine, but was unable to do so. After this he lost consciousness, and was in that condition when he was brought to the Michael Hospital in Tiflis at 9 o'clock. On examination he was then very pale, the pupils acted badly to light, the extremities were cold, he lay motionless on the injured side, the pulse was thready and scarcely perceptible, and he gave no sign of intelligence when asked a question. There was a large gaping wound occupying the left iliac region, six centimeters in length, running upward and to the left from just above the symphysis pubis. From this there was extruded a mass of omentum as large as half the fist, together with some loops of small intestine. The skin in the neighborhood of the wound was very dirty and covered with hair; the omentum was also very dirty, and was therefore excised, and with the stump, after thorough cleansing with a solution of perchloride of mercury, returned into the abdominal cavity. The protruded intestine was found not to be wounded, and after assiduous disinfection was returned. The bladder was now examined, as the wound was just over it. About a tablespoonful of bloody urine was with difficulty drawn off by means of a silver catheter. The finger introduced into the abdominal wound could be passed directly into the cavity of the bladder. In order to obtain sufficient room to suture the vesical wound it was necessary to enlarge the abdominal wound to about thirteen centimeters. The edges of the bladder were brought together by means of forceps, and eight or ten silk sutures inserted according to Lembert's plan for suture of the gut, the length of the wound being five or six centimeters. Afterward the cavity of the abdomen was very carefully washed out with a 6-per-cent solution of chloride of sodium, and the vesical wound stitched to the abdominal wound, the whole being sewn with a double row of interrupted sutures, Sir William MacCormack's advice about making the smallest stitches close to the edges being observed. A Nelaton's self-retaining catheter was introduced, a bladder of ice placed on the abdomen, and a dose of opium administered. The next evening there were pain and vomiting, together with a moderate degree of pyrexia. The pain was troublesome for some time, but the vomiting did not recur. The temperature ran up above normal during

the first eleven days. Some trouble was experienced from abscesses which formed in the neighborhood of the wound, and also from catarrh of the bladder, which, indeed, lasted for a month. The wound was entirely healed on February 12th, and the man was able to leave the hospital on the 21st.—*London Lancet*.

**MODE OF ENTRY OF THE TUBERCULAR POISON INTO THE BODY.**—A very good summary of the various paths of infection adopted by the tubercle bacillus is given by C. Bollinger in the *Münchener Med. Wochenschrift*, 1890, No. 43. He considers that the frequency of infection through the skin has been underestimated. Several cases have been recorded of direct inoculation by wounds received from broken spittoons, etc., by bites, after circumcision, by morphia syringes, and earrings. Eczema and impetigo increase the susceptibility of the skin. No case has as yet been attributed to vaccination, and it would appear that the tubercle bacilli are unable to live in the vaccine lymph. They also appear unable to pierce the pores of the skin as do some of the pyogenic organisms. The susceptibility of the mucous membrane is increased by inflammatory processes, such as otitis, rhinitis, conjunctivitis, pharyngitis, etc.; from thence the poison travels to the submaxillary glands and those of the neck, and generally causes local tuberculosis of the glands. The chief point of infection is of course the lungs. Local predisposition is best exhibited by apices which have been before diseased, but have undergone a healing process. The movement is deficient both in expiration and inspiration, and the liability to reinfection is increased by anemia, irritants (such as coal and metallic dust), constitutional influences, such as diabetes, disturbances of digestion, and unhealthy surroundings. The poison may pass through the lungs and attack the bronchial glands, under which circumstances the disease may be very insidious. The predisposition of the lungs again exhibits itself in metastasis; not every tubercular disease of the organs is due to inhalation of the bacilli or their spores. As regards primary tuberculosis of the testicles, joints, and bones, Bollinger considers that a latent hematogenic infection must be understood, which leaves as little trace of its point of entry as does a primary septic endocarditis or an osteomyelitis. Tubercular disease of the larynx depends upon an auto-infection through the sputum. The rarity of this disease in children is explained by the infrequency of pulmonary cavities in the rapid forms of phthisis. Primary tuberculosis of the intestine generally, combined with an affection of the mesenteric and retro-peritoneal glands, is usually occasioned by means

of vitiated food and contaminated feeding utensils. Secondary tuberculosis of the intestine depends upon an auto-infection. The tubercular poison passes through to the intestine unaltered by the juices of the stomach and attacks Peyer's patches and solitary follicles. Tuberculosis of the peritoneum, which is three or four times as common in men as in women, can arise directly from ulcers of the intestine, from tubercular abdominal glands, or, especially in women, from the urogenital tract; further, through contagion from the lungs and pleura, and finally in the course of miliary tuberculosis, or from caseous bronchial glands. Primary tuberculosis of the peritoneum is rare (three to four per cent of all cases). As regards the infection from milk, this is in Bollinger's opinion undoubtedly due to the udder of the cow being affected with the disease. Infection through the milk of tuberculous women has not yet been proved. In tabular form the organs of the body are thus affected, beginning with those most frequently diseased: (1) Lungs, (2) the lymphatic glands, (3) intestine, (4) serous membranes, (5) larynx, (6) spleen, (7) joints, (8) bones, (9) liver, (10) kidneys, (11) the genital tract, (12) the skin, (13) the brain and spinal cord, (14) muscles.—*Ibid*.

**CASE OF FATTY URINE ACCOMPANYING AN ABSCESS IN THE RIGHT ILIAC FOSSA.**—Dr. J. P. Connolly, of Williamsport, Pa., reported the case, which occurred in a colored woman who had been in health until the birth of her child. After that event she had chills at irregular periods for a long period, but did not call her physician until January, 1890. He found her with symptoms of attending elevation of the temperature, which had begun with chill. She also complained of pain in the right iliac region, and palpation revealed a deep seated tumor with obscure fluctuation. The patient told him that her urine contained fat, and on investigation was found to be covered with an oily substance resembling castor-oil in consistency, but becoming thick like tallow on cooling. Three and a half ounces avoirdupois were passed daily for eight days, and then immediately disappeared after the sudden discharge of a large amount of pus with the urine. Pus continued in the urine about three months. The patient slowly improved, and in five months was apparently well.

The urine had been examined for sugar and albumen, and found to contain none. The patient had not been taking cod-liver oil or other oils. The blood did not contain filaria. A few other cases had been reported. In Cushing's the fat appeared after the escape of pus, and the patient died.—*Gaillard's Med. Journal*.



# The American Practitioner and News

"NEC TENUI PENNĀ."

Vol. XII. SATURDAY, JULY 4, 1891. No. 1

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price \$3.00 a year, postage paid.

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## THE INTER-CONTINENTAL AMERICAN MEDICAL CONGRESS.

We are in receipt of the following circular, which comes signed by the retiring president and the permanent secretary of the American Medical Association. We lay it before our readers without emendation or elongation.

"At the meeting of the American Medical Association, held at Washington May 5, 1891, Dr. Charles A. L. Reed, of Cincinnati, introduced the following:

"Resolved, That the American Medical Association hereby extends a cordial invitation to the medical profession of the Western Hemisphere to assemble in the United States in an Inter-Continental American Medical Congress.

"Resolved, That the Committee on Nominations be and is hereby instructed to nominate one member for each State and Territory, and one each from the Army, Navy, and Marine Hospital Service, who shall constitute a committee, which is hereby instructed to effect a permanent organization of the proposed Inter-Continental American Medical Congress, and to determine the time and place at which the same shall be held.

"The resolutions were seconded by Dr. Wm. H. Pancoast and others, and unanimously adopted.

"Pursuant to the foregoing the following Committee was nominated and elected:

Alabama, W. H. Sanders, M. D.  
Arizona, Henry A. Hughes, M. D.  
Arkansas, Ed. Bently, M. D.

California, W. R. Cluness, M. D.  
Colorado, Wm. A. Campbell, M. D.  
Connecticut, C. A. Lindsley, M. D.  
Delaware, C. H. Richards, M. D.  
District of Columbia, D. W. Prentiss, M. D.  
Florida, C. R. Oglesby, M. D.  
Georgia, J. McFadden Gasten, M. D.  
Idaho, George P. Haley, M. D.  
Illinois, N. S. Davis, M. D.  
Indiana, A. M. Owen, M. D.  
Iowa, B. H. Criley, M. D.  
Kansas, J. E. Minney, M. D.  
Kentucky, J. N. McCormack, M. D.  
Louisiana, Stanford E. Chaille, M. D.  
Maine, Hampton E. Hill, M. D.  
Maryland, George H. Rohe, M. D.  
Massachusetts, Augustus P. Clarke, M. D.  
Michigan, C. Henri Leonard, M. D.  
Minnesota, P. H. Millard, M. D.  
Mississippi, W. T. Kendall, M. D.  
Missouri, I. N. Love, M. D.  
Montana, Thomas J. Murray, M. D.  
Nebraska, R. C. Moore, M. D.  
Nevada, P. J. Aiken, M. D.  
New Hampshire, Irving A. Watson, M. D.  
New Jersey, E. J. Marsh, M. D.  
New Mexico, C. E. Winslow, M. D.  
New York, John Cronyn, M. D.  
North Carolina, H. Longstreet Taylor, M. D.  
North Dakota, E. M. Darrow, M. D.  
Ohio, Charles A. L. Reed, M. D.  
Oregon, Wm. Boys, M. D.  
Pennsylvania, Wm. Pepper, M. D.  
Rhode Island, George L. Collins, M. D.  
South Carolina, R. A. Kinloch, M. D.  
South Dakota, J. W. Freeman, M. D.  
Tennessee, J. R. Buist, M. D.  
Texas, J. W. Carhart, M. D.  
Utah, F. S. Bascom, M. D.  
Vermont, H. H. Holton, M. D.  
Virginia, J. S. Wellford, M. D.  
Washington, J. H. Morgan, M. D.  
West Virginia, J. H. Brownfield, M. D.  
Wisconsin, J. T. Reeve, M. D.  
Wyoming, J. H. Finfrook, M. D.  
U. S. Army, \_\_\_\_\_  
U. S. Navy, A. L. Gihon, M. D.  
U. S. M. Hospital Service, J. B. Hamilton, M. D.

"WM. T. BRIGGS, M. D.,

"President."

"WM. B. ATKINSON, M. D.,

"Permanent Secretary."

"THE INTER-CONTINENTAL AMERICAN MEDICAL CONGRESS.)  
OFFICE OF THE CHAIRMAN OF THE COMMITTEE ON PER-  
MANENT ORGANIZATION.

CINCINNATI, JUNE 6, 1891.

"The Committee appointed by the American Medical Association to effect a permanent organization of the Inter-Continental American Medical Congress met at the 'Arlington,' Washington, May 7, 1891. The following officers were elected: Charles A. L. Reed, M. D., Cincinnati, O., Chairman; J. W. Carhart, M. D., Lampasas, Texas, Secretary; I. N. Love, M. D. St., Louis, Mo., Treasurer.

"On motion, the officers were appointed a special committee to draft a constitution, and

report the same at an adjourned meeting of the general committee, to be held at St. Louis, Mo., Wednesday, October 14, 1891, when the time and place of meeting of the Congress will be decided, and permanent officers be elected.

"CHARLES A. L. REED, M. D.,

"Chairman."

"J. W. CARHART, M. D.,

"Secretary."

In view of the present friendly relations existing between Latin America and the Anglo-Germo-Hiberno-Africo-Celesto-American inhabitants of the North American Continent we can not doubt the timeliness and feasibility of the above scheme.

Reciprocity is to-day the watchword in politics, and we see no reason why it should not be a winning card in medicine.

Though the status of the bacillus of yellow-fever may to-day be no better than that of the bacillus of syphilis, and though the juice of the avelos is still no match for the terrible cancer cell, it can not be denied that bark and its alkaloïds is too many for malaria, that angostura is the king of stomachics (so say the drinking fraternity), and that erythroxylon coca is one of the therapeutic verities of the age. There can be no question that Mexico, Central and South America are in a position, geographical and intellectual, to add substantially to the sum total of medical science; and no one who reads the excellent periodical literature which emanates from these lands will deny that our brethren of Latin America are well up in what is known and are doing their part in making more knowable the unknown in medicine. The only hinderance to the perfect working of the scheme would seem to be diversity in language; but many of our Southern friends are already well versed in English, and those who are not will have little trouble in finding interpreters for what is of scientific use, while at the same time they may be congratulated upon the fact that their ignorance of English will protect them against the common danger in North American medical societies of being literally talked to death.

THE University of South Carolina has conferred the degree of Doctor of Laws upon Dr. F. Peyre Porcher, of Charleston.

## Notes and Queries.

FOOT-AND-MOUTH DISEASE IN HUMAN BEINGS.—A paper has just been published on this subject in the *Vrach* by Dr. Nesvitski, who has recently had under his care six children and two adults suffering from foot-and-mouth disease. One of the children he was able to observe most carefully all through, and he reports this case pretty fully. All, however, presented much the same symptoms, with some comparatively slight differences. There was catarrhal inflammation of the mucous membrane of the mouth, and a vesicular eruption on the soft palate, on the buccal mucous membrane, on the gums and lips, and on the edges of the tongue; but in no case on the posterior wall of the pharynx, on the tonsils, on the arches of the palate, or on the dorsum of the tongue. On opening the vesicles a thick, yellowish liquid exuded. This was much thinner and of a lighter color in the case of vesicles which had only just formed. The course of the vesicles was very regular; they dried up, leaving a small excoriation, which readily bled, but soon healed up, never going on to ulceration. All the patients had some rise of temperature, which persisted until the eruption disappeared. In the case of which details are given the evening temperature for the first five days was about 39.5° C.; on the 6th it was 38.6° C., and after that it became normal. In all the cases there was an acrid smell from the mouth, with profuse secretion of saliva and coryza. In three of the children there was pain in the abdomen. One little boy suffered from diarrhea, the rest of the children being rather inclined to constipation. In the two adults there was no disturbance of the bowels. The duration of the affection was from eight to twelve days. In two of the children there was parotitis, which, however, did not present itself until after the other symptoms had disappeared. In none of the cases could any affection be found in the body or limbs, there being no purpuric spots as described by Bollinger, and no affection of the finger nails, as has sometimes occurred. On the other hand, no other writer, as far as the author is aware, has noted parotitis as a complication. Again, diarrhea seems to have been



much more common among Bollinger's cases than in this Russian series, which in this respect more nearly resembled those seen by Gaupp. The diseases for which foot-and-mouth disease in the human subject is liable to be mistaken are catarrhal stomatitis (simple, erythematous, and phlegmonous), ordinary aphthous stomatitis, and thrush. The diagnosis in Dr. Nesvitski's cases was rendered all the more certain by the discovery that in every instance the patients had been drinking milk from cows affected with foot-and-mouth disease. The treatment adopted was to give quinine in very frequent doses, and to rinse out the mouth with a boracic lotion. The small excoriations were painted with nitrate of silver. With respect to the treatment of this affection, some important laboratory and clinical observations have quite recently been conducted in Germany by Professor Hueppe and Veterinary Surgeon Renner on the action of dithiosalicylate of soda (a substance discovered by Heinrich Baum) upon foot-and-mouth disease. It would seem to exert a powerfully destructive action on a good many micro-organisms which are connected with infectious diseases. A 15 per-cent aqueous solution, for example, it is stated, destroys the bacilli of cholera and anthrax in from two to fifteen minutes. Herr Renner painted the udders and hoofs of affected cows with  $2\frac{1}{2}$ -per-cent and 5-per-cent solutions, and found that a very rapid cure ensued. A number of German stock-keepers, too, who have used this remedy, speak very highly of its efficacy. It appears that it may also be given to human patients internally, for Dr. Lindenborn, of Frankfort, has prescribed it for hospital patients suffering from chronic articular rheumatism, in 8-gram doses four or five times daily, with good effect. A lithium salt has also been prepared, and is said to produce remarkably good results in both rheumatism and gout.—*London Lancet*.

**MUSHROOMS AS FOOD.**—The alarming symptoms which occasionally follow the use of fungi when taken as food are familiar to most of our readers. The risk in this particular, however, is less than it might be. In actual market custom we recognize but a very few forms of edible fungi, though it must be allowed that even in

these we are liable to deception of a somewhat dangerous kind. It is therefore a matter of some importance that the public mind should be informed as far as possible of the qualities which distinguish the edible from the poisonous varieties. To give a precise definition which would also be comprehensive is, however, no simple matter; and as a matter of fact the number of edible fungi, even in this country, is much greater than is commonly understood. It may be said, however, that a high color, a scaly or spotted surface, and tough or watery flesh are usually associated with poisonous properties, while the edible species are but seldom highly colored, scaly, or spotted, but usually white or brownish, and brittle on fracture. The former, moreover, grow clustered on wet or shady ground, the latter singly in dry pastures. The common British mushroom is known by its pink hymenium or gills. Fungi which have a bitter or styptic taste, or which burn the fauces, as well as those which yield a pungent milk, those of livid color, and those which on bruising assume various hues, ought to be avoided. It should be remembered also that all plants of this class readily undergo decomposition, and should therefore be eaten as fresh as possible.—*Ibid*.

An enterprising lady has been making investigations upon the question of matrimony in regard to her sex. She finds that the highest marriage rate is among trained nurses, and impartial observation would rather tend to support the statement that this is the best field for matrimony which the fair sex enjoys.

**DANGERS OF SULPHONAL.**—Although sulphonal is probably one of the safest, as it is one of the most efficacious, among the hypnotics recently introduced, the series of cases published by Bresslauer, of Vienna, show clearly that it has certain dangers. (*Lancet*, April 4, 1891.) The degree of peril is hard to estimate, as the patients were lunatics, and were also apparently feeble; but the fact is significant that out of seventy-seven patients who were treated with the drug no less than seven showed serious symptoms, and in five of these there was a fatal termination. It ought to be mentioned that the patients had been taking the drug for

a considerable time in good doses, and had borne it well until symptoms of disturbance set in, these being great constipation, dark-brown urine, slow, or in some cases rapid but feeble pulse, discolored patches resembling purpura on the limbs, and great prostration. In the cases which ended fatally the cause of death was heart-failure, with edema of the lungs.—*Boston Medical and Surgical Journal.*

*Editors American Practitioner and News:*

THE report of my part in the discussion at the recent meeting of the Kentucky State Medical Society as published in your last issue is incorrect. I regret that my work prevented my reading the proof sheets. I will give to the Volume of Transactions a correct report of what I said. Yours very truly,

W. H. WATHEN, M. D.

### SPECIAL NOTICES.

**SUMMER DISTURBANCES OF CHILDREN.**—In fermentative disorders of the alimentary canal in the young, middle-aged, or old, Listerine has given most satisfactory results. In the Summer diarrhea of children, Dr. I. N. Love, of St. Louis, speaks very highly of it given in combination with glycerine and simple syrup. A formula that I have time and again used, in fact, it has almost become routine with me of late years, is as follows:

R Bismuth sub. nit. .... half a dram;  
Tr. opii. .... twenty drops;  
Syr. ipecac. .... } aa ..... two drams;  
Syr. rhei arom. .... }  
Listerine ..... half an ounce;  
Mist. creta ..... one ounce.

M. Sig: Teaspoonful as often as necessary, but not more frequently than every three or four hours. This for children about ten or twelve months old.—*D. J. Roberts, M. D., in Southern Practitioner.*

**NEW Sydenham Society's Lexicon of Medicine and the Allied Sciences.** By Henry Power, M.B., and Leonard W. Sedgwick, M. D. London: The new Sydenham Society. This is the most complete and valuable lexicon of medical terms ever published.

It is a very extensive work, consisting of six to eight large volumes.

It is issued in parts, the first part appearing in 1883, the latest in 1889.

The latest issue is part xvi., from Lin. to Mas., in which the word-symbol "Listerine" is thus defined:

"Listerine—A solution containing the antiseptic constituents of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis, with two grains of benzo-boracic acid in each dram. It is recommended by J. Lewis Smith as a preventive and antidote of scarlet fever, in doses of a teaspoonful for an adult every three or four hours."

THERE is a firm in the East which professes to deal in a "Genuine" Hoff's Malt Extract, that has addressed us several communications offering the munificent price of five and ten dollars to publish articles laudatory of their so-called "genuine" product. We are sorry to see that many Eastern medical journals have accepted the articles in question, presumably at the same price. We are not so much in need of copy that we are obliged to sell our convictions for a paltry five or ten dollars, and besides, we know of only one "Genuine Hoff's Malt Extract," and that is imported direct from Germany by the well-known firm of Tarrant & Co., of New York, and we would advise our readers, when ordering Hoff's Malt Extract, to distinctly state "Tarrant's," else they are liable to get an inferior article.—*From the California Homoeopath, April, 1891.*

**SEASONABLE REMEDIES.**—Among seasonable remedies, which are supplied by Parke, Davis & Co., are the following:

Chloranodyne, which is an excellent antispasmodic and anodyne in diarrheal disorders, gastric troubles and intestinal colic. It combines the therapeutic virtues of morphine, cannabis indica, chloroform, capsicum, hydrocyanic acid, alcohol, glycerin, and oil of peppermint. It is an improvement upon chlorodyne, a patented preparation, widely dispensed as an anodyne and antispasmodic.

Liquid Acid Phosphate, the action of which is to relieve symptoms of nervous exhaustion, depression, sleeplessness, melancholia, and increase the vitality. This action is so well recognized that the Acid Phosphate is in considerable demand as a stimulating beverage.

The ordinary dose of the Liquid Acid Phosphate is one-half to one fluid dram, in a glass of water, sweetened or not, according to taste. With carbonic acid water and any suitable syrup, it forms a refreshing and agreeable beverage.

Lime Juice and Pepsin is a grateful refrigerant and anti-scorbutic. It is a prophylactic against many disorders prevalent in the summer months.

Wm. Thomas Coggin, A.M., M.S., Ph.D., F.S.S., L.A., London, England, of Keener, Alabama, says: I have used Cactina Pillits (Sultan) in both organic and sympathetic heart troubles with best results. For nicety of preparation and certainty of action they are commendable.

ANDREW BOYD, M. D., Vice-President of the Tri-State Medical Association, Scottsboro, Alabama, says: It gives me pleasure to say that for two years I have prescribed S. H. Kennedy's Extract of Pinus Canadensis, both alone and in combination, in many acute and subacute inflammations of the mucous membrane. As a disinfectant and astringent I do not know its superior. It forms the base of my prescriptions for phlyctenular pharyngitis used as a spray. Have used it undiluted in ulcerated sore throat and ulcers of rectum. I use it daily almost in common sore throat, diluted with aqua carbolica. It has given me good results, and I am very glad you have given us a preparation we can rely upon.

**IRREGULAR MENSTRUATION. LEUCORRHEA.**—

R Celerina ..... 4 oz;  
Aletis Cordial [Rio] ..... 4 oz.

Dose, two teaspoonfuls half an hour before meals.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

LOUISVILLE, KY., JULY 18, 1891.

No. 2.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### ANNUAL REPORT TO THE STATE BOARD OF HEALTH.\*

BY J. N. M'CORMACK, M. D., SECRETARY.

I am gratified to be able to report, so far as can be ascertained in the absence of a reliable system of vital statistics, that, with the exception of the wide-spread prevalence of typhoid fever and the recurrence of the pandemic of influenza or *la grippe*, more than the ordinary healthfulness has prevailed throughout the State during the year.

But two outbreaks of smallpox were reported, and in both instances, by the prompt and efficient action of the local health authorities, the disease was confined to the families first attacked. Numerous outbreaks of diphtheria, scarlet fever, and measles have occurred, but in the large majority of instances the type of these diseases was reported as being mild and subject to easy control.

After consumption, typhoid fever continues to be our annual scourge. This disease has had its usual annual prevalence in Louisville, and, as has been the case for several years past, has been reported from nearly every section of the State. That this is a filth disease, and that it is usually caused by the use of drinking-water contaminated with fecal matter, is now generally recognized as being true by physicians and sanitarians; but it is to be regretted that so far little practical use has been made of this knowl-

edge by the average householder. Although occurring at all seasons of the year, it is more frequent and fatal in the summer and fall when the water in the wells and springs is low, and any pollution they may contain is more concentrated. Subject to little or no restrictions of climate or altitude, wide-spread and fatal alike in country, town, and city populations, and usually most prevalent and fatal in healthy young adults, it is, for these reasons, as well as for the comparative ease with which it may be prevented, practically the most important disease with which we have to deal in Kentucky as health officials.

Preventible diseases should be important to the community in proportion as they affect the sick-rate and the death-rate. In the thirteen years since this Board was organized no death has occurred from cholera, and no more than two hundred from yellow fever, and about twenty-five from smallpox; yet a single case of either one of these diseases is more than sufficient to paralyze the business of and cause general alarm in any neighborhood. These might properly be called our imaginary plagues. On the other hand, typhoid fever, and to a less extent, diphtheria, diarrhea, and dysentery, our real plagues, important because of the large additions they make to our sick- and death-rate in every section and in every year, excite little comment or are looked upon as necessary evils.

I would suggest that the Board renew the crusade, begun several years ago, against these filth diseases, of which typhoid fever is the best representative, and continue it until the methods of prevention have been placed in the hands of every family in the State which can be induced to read our leaflets and circulars in the secular and religious press.

The recurrence of the *grippe* epidemic during the year is believed to have made material ad-

\* Read at May Meeting of Kentucky State Medical Society, 1891.

ditions to our death-rate, although the disease appeared here in a milder form than in many other sections of the country. The place of origin as well as the cause of this disease is masked in the same obscurity characteristic of each of the many visitations of it from which mankind has suffered in modern times.

So far as can be ascertained it was first observed in Eastern Siberia early in October, 1889. Traveling rapidly westward it crossed the Caucasian Mountains by the middle of October, appearing in St. Petersburg in November, and diffusing itself over almost the whole of Western Europe within the next six weeks. It reached New York almost simultaneously with its appearance in London, and in a remarkably short period of time was noted in widely separated parts of the United States and Canada. In fact its invasion of widely distant places was so nearly contemporaneous as to baffle all attempts to trace its progress or even to indicate the direction of its course.

Although in the height of the epidemic it was not regarded as a disease of very formidable character, yet at the present time, nearly eighteen months after its first appearance, and long after its disappearance as a distinct disease, it seems plainly evident that it has proved, directly and indirectly, a serious pestilence. Its pernicious effects were not limited to the few weeks in each year in which it prevailed in its most characteristic form. In the absence of reliable statistics, except for the larger cities and towns, exact data can not be given; but not only was the sick-and death-rate greatly increased during the prevalence of the epidemic influence proper, but for months afterward there seemed to be a marked severity and mortality from a variety of diseases contracted during that period, and even yet many persons are not fully recovered from such infirmities. The increased mortality occurred chiefly in the very old, the very young, and those already suffering from lung, heart, or kidney affections, although no class or conditions were exempt from the disease itself.

The law designed for the protection of our people from empiricism is working satisfactorily, except in the city of Louisville, where no very persistent effort seems to have been made to en-

force its provisions, and, so far as can be ascertained by an extensive correspondence with court officials and medical men, the law has met with an approval unusual in the history of reform measures. The efforts of the empirics to procure indorsement and registration have, in many instances, marked the ingenuity, persistence, and unscrupulousness of their class; but, so far as I now know, only one of these attempts has been successful since the passage of the amended law.

The liberal regulations of the Board in regard to the indorsement of diplomas were probably necessary to prevent hardships to both physicians and communities educated under the old regime; but as the requirements of these have been met, it is probable that the time has arrived for such a strict construction of the law as will, in the future, secure for our people that degree of education in the medical profession contemplated by the statute and essential to their proper protection.

Some of the colleges now recognized as in good standing by the Board are doing very imperfect work, and are annually turning loose upon the people a horde of dangerous illiterates, armed with diplomas certifying to qualifications not possessed by the holders, but which enable them under your regulations to register and become legal practitioners of medicine. Letters taken at random from the files of my office will furnish evidence of a degree of illiteracy upon the part of many of these graduates absolutely incompatible with the idea of any scientific attainment.

In consequence of the rigid requirements of many other States of the Union, where every applicant for license to practice medicine is subjected to a searching practical examination whether a graduate or not, the tendency is for the least desirable graduates of the lowest grade of colleges recognized by this Board to drift to this State. The trend of medical sentiment in all civilized countries at the present day is to a complete separation of teaching and licensing bodies; and experience had with this plan in other States and countries makes it seem desirable that its adoption should become general.

The yearly increasing numbers of medical



colleges in this country requiring higher preliminary requirement of matriculates, a longer course of study and attendance upon lectures, and a much higher and wider range of attainment before graduation shows the strong demand for higher medical education, although many of these colleges are probably more directly influenced by the requirements of the licensing bodies in the various States.

There are now 148 colleges of all kinds in existence in the United States and Canada, there being 135 in this country and 13 in Canada. In 1882 the number of colleges requiring certain educational qualifications before matriculation was 45; in 1886, 114; in 1889, 117; in 1890, 124; and in 1891, 129. In 1882 the number of colleges that required attendance on at least three courses of lectures before granting a diploma was 22; in 1886, 41; in 1889, 47; in 1890, 64; in 1891, 85. In 1882 hygiene was taught in 52 colleges, while in 1891 this important branch is taught in 123 colleges. There has also been a gradual increase in the duration of the terms of lectures from an average of 23.5 weeks in 1882, to 26.3 weeks in 1890. The number of colleges having terms of six months or more in 1882 was 42, against 111 in 1891. (Rauch: Report on Medical Education.)

A fresh impetus has been given to this advance movement by the formation of the American Medical College Association, with fixed minimum requirements for matriculation and graduation for all connecting themselves therewith, and by similar action by the National Institute of Homeopathy and the National Eclectic Medical Association.

I would suggest that this Board place upon the list of colleges whose diplomas are to be indorsed for registration in this State, after the session of 1891-92, only those adopting the requirements of the American Medical College Association, or the other national bodies above mentioned, and that your Secretary be instructed to require of every applicant for indorsement satisfactory evidence, as contemplated by the law, that such applicant is not an empiric.

Additional legislation is very much needed in regard to the collection of vital statistics,

which has been urged in former reports, and to prevent the sale of adulterated foods and drugs.

Four years ago this Board made an effort to secure the passage by the General Assembly of a bill looking to the prevention of adulterations of foods and drugs, but it failed to become a law. The bill was, in the main, the one drafted by the National Board of Trade, and now in successful operation in Massachusetts and New York, with results reported to be gratifying to all except the manufacturers and dealers in adulterated articles.

The necessity for legislation upon this important subject has increased rather than diminished. In some measure the people of this State have profited by the analytical work and legal prosecutions in other States, chiefly in having their attention called to the matter. On the other hand, it is undoubtedly true that the enforcement of the stringent laws in other States, which have driven adulterated foods and drugs out of their markets, have driven them into ours. Adulteration is a profitable business, and there is every reason to believe that the opportunities offered in Kentucky by the indifference of our legislators are not neglected.

The rapid growth of knowledge in recent years as applied to food products has made it possible, by substitution, subtractions, additions, or counterfeiting, for adulterations to be successfully and profitably made to almost every variety of food in common use. In many cases the materials used in making the adulterations are injurious to health, while in probably the majority the result is merely fraudulent, the purchaser of the adulterated food or drug paying a high price for a cheap article. A subject of so much importance demands the earnest attention of our law-makers.

Every effort is made to secure the arrest and conviction of counterfeiters of money, while the counterfeiters of foods, although standing no higher in the moral scale, go unmolested. This condition of affairs will continue until a thorough system of food and drug inspection is adopted, and I would suggest that a measure of this kind be prepared and pressed before the coming General Assembly.

Dr. Bailey and myself, as representatives of

this Board, attended the meeting of the American Public Health Association, held at Charleston, S. C., in December last. Reports of the proceedings were forwarded to each of you. Dr. Beeler and myself, in a similar capacity, have recently returned from a meeting of the National Conference of State Boards of Health, held at Washington. The meeting was one of great interest throughout to practical sanitarians, and arrangements have been made to place a copy of the proceedings in the hands of every health official in the State.

The routine work of the Board has been of the usual amount and interest for the year. The local Board of Health for each county in the State will require to be reorganized and each of the five hundred and more health officials recommissioned at the close of this year. I ask your assistance and counsel in this work in your respective districts.

In conclusion, I submit my financial statement for the year, with vouchers for each item of expense. From this statement you will observe that the funds in our hands have been so carefully husbanded that the reserve for use in case of epidemic or other emergency has gradually increased with each year of my administration of it.

BOWLING GREEN, KY.

### A CASE OF CONCUSSION.\*

BY WM. L. RODMAN, A.M., M.D.

*Demonstrator of Surgery, Medical Department, University of Louisville.*

Instead of presenting for your consideration a full report upon brain surgery, as I had expected to do, and which was in great part prepared, I have chosen to consider only one condition of the brain, and that in a practical way, by detailing a fatal case of concussion, with the results of the *post-mortem* examination.

Death from concussion of the brain, seemingly moderate in severity, is certainly not common. The symptoms presented in this case at the time of the injury, and for two days subsequently, would have indicated it to be only of average severity. Death was wholly unlooked for by the attending physician. The

following history of the case was given me by the physician in attendance:

On March 8, 1891, Dr. R. J. Brigham, a homeopathic physician fifty-nine years of age, residing in New Albany, Ind., fell down a rather steep stairway at his residence about 7.30 P.M., striking his head on the right side, about three inches above the ear. A few other bruises trivial in character were found about his body. He was slightly stunned by the fall, and showed the usual symptoms of a moderately severe concussion of the brain. In a short time he was able to go back up stairs to his room unassisted. He soon complained of pain in his head, and commenced to vomit. Locally there was some swelling of the scalp at the site of the blow, resembling a whelk made by the lash of a whip. Vomiting continuing during the night, Dr. Needham was called in. He gave him something for the vomiting, and applied arnica to the wound.

On March 9th, the day following the injury, he vomited until about noon, complained of some pain in his head, and had a frequent pulse. He had no fever, the doctor thinks, though the thermometer was not used.

On March 10th patient felt much better, and expressed a desire to spend the day down stairs upon a couch in his library. He was permitted to do so, and walked down stairs unassisted soon after breakfast, remaining there until after supper. He then again walked up stairs to his room unassisted, but upon reaching it became faint and fell, striking his head a second time in about the same place he had struck it two days before. His sons, hearing the noise, went to his assistance, undressed and put him in bed. He was flighty for several hours until about midnight, when he passed into a condition of coma from which he was never aroused, dying the following day at 3 P.M., or about sixty-eight hours after the first injury, and twenty hours after the second fall. There was at no time any paralysis. The condition of the pupils was not noted.

As Dr. Brigham carried an accident policy for \$5,000 in the Fidelity and Casualty Company of New York, Dr. Pearce and I, the company's surgeons at Louisville, were asked to go to New Albany to investigate the case

\*Read at the May Meeting of the Kentucky State Medical Society.



fully, and to make an autopsy if we thought proper.

After hearing the attending physician's statement I was of the opinion that three views as to the cause of death were possible :

(1) Death from concussion in the stage of inflammation.

(2) Death from compression, due to a clot poured out at the time of the second blow upon the head.

(3) Death from opium, as there was so little evidence of mischief locally.

Whatever of swelling and contusion existed at the site of the injury during life were not distinguishable after death.

The third mode of death was soon eliminated. Opium was given "to bring him out of coma," so his doctor said, but in regular homeopathic doses, as both patient and doctor believed in high potencies as well as in *similia similibus curantur*. From what I was told of the amount he had taken, I should think that the best chemist would have difficulty in getting a reaction for opium by the most delicate test known, were a like amount placed in his crucible before him.

The attending physicians believed death to be due to compression, the result of a clot poured out at the time of the second blow on his head. While this view was plausible enough, I did not subscribe to it, and believed that death was caused by concussion pure and simple in the stage of inflammation.

In the first place there was no paralysis, and this in itself was a strong point against a clot of any size. Secondly, a clot situated beneath the point injured by the blow would have been most favorably located to cause hemiplegia of the opposite side. Thirdly, coma caused by a clot in this situation would in all probability have come on suddenly and not slowly, as the blood-vessels in this situation are large, and their contents would have been poured out rapidly and the pressure effects soon observed.

*Epilepsy.* Another interesting view in connection with this case, on account of the two falls, was the possibility of epilepsy, vertigo or heart trouble having existed for some time prior to the injury. No accident company pays for injuries received as the result of dis-

ease. For instance, an epileptic would not be given an accident policy, as he would be in constant danger of injury to himself. The previous history of this man eliminated all such probabilities, as he was a person in robust health.

While I did not doubt that Dr. Brigham died as the result of the injury received, and was entitled to his insurance, I was anxious to see the condition of his brain, and accordingly asked for an autopsy. No objection being made by the family, a *post-mortem* examination was made by the coroner, Dr. W. L. Starr, assisted by Dr. Easley, with Drs. Needham, Pearce, and myself as witnesses. The scalp being removed, an ecchymotic spot about the size of a silver dollar or larger was found on its under surface. The bone was not injured in any way. Removing the calvarium and examining the outer surface of the dura mater, nothing abnormal was seen. When the dura was carefully removed, a patch of inflammation was discovered in the arachnoid and pia mater about the size of the palm of a hand. This inflammatory spot was just beneath the ecchymosis in the scalp. The vessels in this area were much congested, the veins being as preternaturally filled with blood as the arteries. There was no clot, small or large. It was meningitis pure and simple, the most careful scrutiny failing to detect the slightest laceration of meninges or brain. Inflammatory changes were unmistakable, the meninges showing at spots in this inflamed area flakes of lymph.

Transverse sections were made of the right half of the brain and longitudinal sections of the left, and every thing found to be normal. There were neither clots nor serum within the ventricles. No clots or any thing abnormal were found in the fossæ at the base of the skull.

The heart, lungs, liver, kidneys, and all other viscera were carefully examined and found to be in a normal condition.

The autopsy was made with unusual care and patience, and the only lesion found was the circumscribed meningitis situated just beneath the blow upon the head. It unquestionably caused the death.

This is the only case of uncomplicated concussion that I have ever known to result fa-

tally. I have seen many cases seemingly more aggravated and pronounced in every way, and they have uniformly ended in complete recovery. To be sure, concussion or any injury to the brain of a man fifty-nine years of age is more likely to eventuate in untoward symptoms than the same lesion would be in children or young adults.

Concussion pure and simple does not often kill in the stage of collapse. It is the supervening inflammation which is to be dreaded, and every reasonable precaution should be taken to either prevent or allay it.

Any case of concussion, however mild apparently, should be looked upon as a serious matter and treated as such. Many men have been unfitted for intellectual pursuits, others made to spend their lives in asylums for the insane, for the want of proper medical attention in such attacks, which at the time were thought nothing of.

LOUISVILLE.

### METHYL-VIOLET IN THE TREATMENT OF TUBERCULOSIS.\*

BY MARTIN F. COOMES, M. D.

The subject of hemiopia has been assigned to me for the purpose of making a special report on that particular affection; but with your kind indulgence, I beg leave to make a report on some experimental work that I have done within the last few months with a view of curing lupus.

The great interest taken in Koch's discoveries naturally awakened the medical mind to a new line of thought, and also aroused the invalids all over the land, who had been living in hope that something would turn up which might lead to a cure or mitigation of their ailments.

Being engaged in a special line of practice, it was but natural that those persons who were affected with the diseases to which I gave my attention would consult me concerning any new remedy that might offer a chance of relief.

On the 11th day of March I was consulted by Mrs. M., who lives in the city of Louisville, Ky., on Baxter Avenue near Underhill Street.

She was the subject of a lupus involving the interior and exterior portions of the nose. I examined her very critically, and upon inquiry found that the disease began by the appearance of a small pimple on the side of the nose, looking like a yellow blister, some year and a half before. At first she paid but little attention to it; but instead of disappearing it gradually grew in size, and she became alarmed and consulted Dr. J. M. Krim, of Louisville, who kept the case under observation until a short time before it came into my hands. It is due Dr. Krim to say that he had used every means known to the profession with a view to curing the disease, with negative results, and when it was asserted that Koch's lymph would cure lupus he insisted that the patient should avail herself of its virtues, but this she absolutely declined to do, and discontinued the doctor's services.

When I first saw her there was a large open sore extending from the root of the nose to within a quarter of an inch of the lobe or tip. Its area was about that of an inch by three quarters of an inch. At the point where the septum joins the floor of the nose there was a large sore extending from one ala to the other. There was complete destruction of the bones of the nose—the turbinated and the septum. There was also a small sore on the upper lip about the size of a split pea. Clinically speaking, all the sores were of the characteristic kind that are met in such cases, and their behavior from the beginning had been that of lupus. I investigated the case thoroughly as to the possibility of its being specific (syphilitic), but there can be no trace of that disease found either in the patient, her husband, or any of the family for three generations, so far as Dr. Krim and I have been able to determine.

The patient was an old woman, and the wretched condition she was in when I first saw her made the case one of the worst it had ever been my lot to see. I could promise her nothing in the way of a cure, and scarcely any hope of palliation. In fact, I told her that I could do her no good, and that I thought the Koch treatment offered her the only hope, and insisted that she permit me or some one else to try the experiment. This

\*Read at the May meeting of the Kentucky State Medical Society, 1891.



she flatly refused, saying that she was afraid of it, and that her husband and children were also opposed to its use for fear of its killing her. I went so far as to tell her that I had treated a number of cases by the old methods, and all of them with the most discouraging results, hoping to get her to try the Koch lymph, or to get her to release me from prescribing for her. But for some cause she insisted that I could cure her, and said that I must give her something. Finally, I ordered her a wash, more for cleansing purposes than any thing else, and told her that it would do no good as a curative agent, but to use it and report the next day.

During the interval it occurred to me that if lupus was local tuberculosis, or some kindred disease which was caused by a bacillus, those agents which stained the bacillus ought to kill it, and with that idea in my mind, when the patient returned, which was on the twelfth day, I had her to stop using the wash which I had first prescribed, and ordered for her a solution of methyl-violet, one in one thousand, to be applied to the open surface once each day, after the sores had been thoroughly cleansed with saline washes and the peroxide of hydrogen, ten-volume solution. I saw the patient every day and washed and dressed the sores myself, so that there might be no mistake about its being done as I desired. The improvement was rapid from the beginning, the sores healing as rapidly or more so, for certain periods of time, than if they had been the result of traumatic injuries.

The improvement went on uninterruptedly until all the sores were healed, which was on the thirteenth day from first application. The ulcer on the top surface of the nose was the first to close. There has been no evidence of a return at this point. The next to close were the open surfaces on the interior of the nose. This occurred within a week after the closure of the sore on the top of the nose. There has been no tendency to a return of the disease in this locality. The sore on the lip was the last to heal, which was completely closed thirty days after the first application was made. Near this sore on the lip was a small white mass beneath the true skin that looked like

a cheesy mass. I feared that this was in some way connected with the disease; and with the view of eradicating the disease I cut down and removed the mass as thoroughly as I could. This was followed by what might be called violent reaction, causing the original sore at this point to open up again and increase in size until it was half an inch long and nearly as wide. The base became much indurated, and for several days it looked as though the sore would spread over the entire lip, but within the last ten days past it has commenced to close up as the others did, and it is now healing rapidly, and if it continues will be closed in a fortnight.

This woman has had no internal medication whatever from first to last. I have avoided purposely the use of any agent that might in any way throw any doubt on the result of the peculiar line of treatment pursued in this case.

The second case was that of a young lady from Cloverport, Ky. Her first visit was on the 14th of March of the present year. She is about eighteen years of age, blonde complexion, and has many evidences of the so-called strumous taint. The lymphatics about her throat and neck are swollen, and in the past several large abscesses have resulted from the inflammation of these glands. Some sixteen months ago this patient had a small yellowish pimple to appear on the outer surface of the nose near the tip or lobe. In this case, as in the first, the patient gave it little attention, until it refused to heal and began gradually to spread. It was painless, aside from that which was induced by efforts to close it. Medical advice was sought, and after a time it was determined that it was a case of lupus, and in this case, as in the other, the diseased area increased until the entire outer surface of the nose became involved. When I first saw her it is safe to say the nose was three times its natural size, the open surface extending from the root of the nose clear down so as to completely obscure the alae, and extending some little distance up and through the anterior nares. There was on the right side of the face, directly over the superior maxillary bone, an open sore about the size of a split olive. There was also a decidedly diseased area involving the right upper eyelid, and there was also a small

area in the external auditory meatus, on the right side. The great enlargement of the nose, and its rough, nodular suppurating surface, made the patient very unsightly, and rendered it necessary that she seclude herself from everybody except her most intimate associates. Having been much encouraged by the short experience of Mrs. M's case, I determined to try the methyl-violet in this instance.

In this case, as in the first one, the improvement was marked and rapid from the beginning, and those of my friends who saw the case from time to time were as much surprised as I to see the rapidity of improvement. The most marked influence on the sores was the diminution in the quality of pus and the shrinkage of the tissues involved by the disease. In fifty days Miss O. B.'s nose was of normal size, and had only four small suppurating surfaces in the skin of the lower portion. The sore on her cheek was healed.

The area involved over the right eye never suppurated. One of the most marked features of this case was the frequent occurrence of abscesses just beneath the true skin of the nose. They always contained a whitish, creamy-looking pus, and when they were evacuated healed up rapidly. Others did not appear in their place. At times, for two or three days, there would seem to be a cessation in improvement, and then, as if by magic, quite a large-area of surface would clear up and seem to progress as before. Improvement began all over the nose, but seemed to be most rapid from above downward, and at this time the only tissues involved are those in the region of the alae.

I have every hope of curing both cases, and make this report trusting that those who have patients with lupus will give this a fair and impartial trial, and conduct the work in such a way as to leave no doubt as to what agent produces the relief. I have withheld the knowledge of the remedy from the general profession and the public, and the manner of using it, until I could become satisfied that it had at least some virtues as a therapeutic agent, if it is not a positive cure for lupus.

Latterly I have been using three parts of the methyl-violet and one thousand parts water.

In this case, as in the first, there has been no internal medication whatever, not even a tonic.

I give this to the profession for what it is worth, with the facts just as they occurred, hoping that others will take this subject up and determine what appears to me, from a very limited experience, to be a great boon to the human race. If it does nothing more than to mitigate the sufferings of those unfortunates who are cursed with this loathsome disease, I shall feel fully repaid for my labor.

LOUISVILLE, KY.

### THE DIAGNOSTIC VALUE OF THE DIPHTHERITIC BACILLUS.\*

BY SIMON FLENNER, M. D.

In the second volume of the *Mittheilungen aus dem Kaiserlichen Gesundheitsamte*, published in 1884, there appeared a contribution by Loeffler on the bacterial nature of the disease called diphtheria. Loeffler states in this paper that he has isolated in pure cultivations the organism described by Klebs the year before as occurring in the diphtheritic membrane and considered by him as the cause of the disease, and that he has succeeded in reproducing from inoculations of his pure cultures into susceptible animals a disease possessing anatomical characters identical in all essential particulars with human diphtheria.

At the time of Loeffler's first communication he expressed himself with some reserve on the final point whether the organism which he isolated could be considered to be the causative agency in the production of the disease diphtheria. But in the time which has elapsed since then one after another of the objections to the acceptance of this organism as the cause of primary diphtheria have been removed; and to-day we have, as I believe, in the bacillus of Klebs-Loeffler the true cause of primary diphtheria.

As Loeffler pointed out, it becomes necessary in the first place to distinguish between diphtheria and diphtheritis. He describes the first term as indicating "a characteristic and distinct

\*Read at the May Meeting of the Kentucky State Medical Society, 1891.



disease due to a specific *ens morbi*, like measles and smallpox, which has continued constant for centuries, and occurs epidemically;" and by the latter term, diphtheritis, he understands exclusively "a definite pathologico-anatomical form of tissue change, which occurs in diphtheria along with other tissue changes."

In his first paper he gives the evidence on which he bases his belief that he has isolated the bacillus diphtheriæ. He says: "They have been found in thirteen (13) typical cases of diphtheria, with fibrinous exudation on the fauces and in a constantly recurring arrangement; they lie in the oldest part of the membrane, and penetrate deeper than any other bacteria. Cultivations of the organism introduced beneath the skin of guinea-pigs and small birds kill them, producing a whitish or hemorrhagic exudation and extensive edema at the point of inoculation.

"The internal organs are not affected, as is the case with man; introduced through a wound in the trachea in rabbits, fowls, and pigeons, the poison produces a false membrane, and also if placed on the scarified connective tissue of the rabbit and in the entrance of the dilated vagina of guinea-pigs. In addition to the formation of a false membrane there has been observed the characteristic serious alteration of the vascular walls, which shows itself by bloody edema, hemorrhage into the tissues of the lymphatic glands and effusion into the pleural cavity.

"The bacilli have, therefore, the same effect as the diphtheritic virus. They also have the property in common with the virus, that they kill young animals more easily and quickly than old ones. On the other hand, the bacilli were not present in a number of undoubted cases of diphtheria. They were not found in the false membrane in rabbits and fowls arranged in the same typical manner as in man. When applied to the uninjured mucus membrane of the fauces, respiratory passages, eyes, and vagina, no effect was produced in several animals otherwise susceptible to their action.

"Animals which survived inoculation showed no paralytic symptoms. A bacterium is sometimes found in the saliva of the healthy child which morphologically and physiologically is

indistinguishable from the bacillus of diphtheria."

Hence he concludes that if the bacillus is not demonstrable as the cause of diphtheria it is not excluded from so being. This was in 1884. As stated before, the doubtful cases and conditions have been cleared away one by one until, in 1890, Loeffler presented, in the *Deutsche Med. Wochenschrift*, another communication, in which he reviewed the entire subject, and from the numerous contributions from all parts of the enlightened world the conclusion is reached that the bacillus diphtheriæ is the sole cause of primary diphtheria. At this time there was but one discordant series of experiments. This was that of Prudden in this country, and it was predicted by Loeffler that the doubt arising from this investigator's observations would be cleared up in time, as he did not believe that a different form of diphtheria prevailed in this country from that occurring elsewhere.

In a paper published by Drs. Welch and Abbott, in the Johns Hopkins Hospital Bulletin for 1891, this remaining doubt was removed; for in a number of cases of primary diphtheria occurring in Baltimore, Md., which they examined they found the Klebs-Loeffler bacilli in every one, isolated them in pure culture, and tested their virulence on guinea pigs. Finally, Prudden himself has, in a recent number of the New York Medical Journal, published a result of a new series of experiments in which he found the bacilli of diphtheria regularly in a number of undoubted cases of the disease, and he expressed himself as convinced of their causative relation to the disease.

So it will be seen that in the bacillus of Klebs-Loeffler we have an organism that is found regularly by all competent observers in different parts of the world in undoubted cases diphtheria. That by means of this organism the disease can be reproduced in all of its essential and distinguishing features in the lower animals, and from these animals it is possible to obtain the bacilli again in pure cultivations.

If the discovery of the bacillus diphtheriæ has shown us that diphtheria is produced by a living organism, it has enabled us also to answer other very important questions concerning

the etiology of this disease. In a recent address delivered by Dr. W. H. Welch before the Medical and Chirurgical Faculty of Maryland (*Med. News*, May 16, 1891), the author, in considering the light which has been shed upon diphtheria by the discovery of its specific cause, reviews the still much disputed questions concerning the disease: "Is diphtheria primarily local or constitutional in its organism? Are all pseudo-membranous inflammations of the throat, not directly referable to caustic irritants, diphtheria? Is there a purely local, non-contagious, pseudo-membranous laryngitis called croup distinguishable from diphtheria? Are the pseudo-membranous anginas secondary to scarlatina, and less frequently to measles and some other infectious diseases, identical with diphtheria? Is there any relation between follicular tonsillitis and diphtheria? May diphtheria occur in a mild form as a simple catarrhal inflammation of the throat? Are pneumonia, acute nephritis, suppurations of the glands of the neck, etc., referable to the direct action of the diphtheritic virus; in other words, what lesions belong directly to the disease and what are complications? Shall reliance be placed upon local or general treatment?"

To attempt an answer, as far as it is possible to do so, to all of these questions, important though they are, would extend this paper much beyond the time it should observe. But a few of them are of such great importance that we must examine them for a moment.

One of the greatest achievements of the discovery of the diphtheritic bacillus is the proof that the virus develops locally at the site of inoculation only; that it never invades the blood and organs of the body, and that it is not capable of penetrating into the mucous membrane of the part affected. But if the bacilli develop locally they are not prevented from producing a poison which enters the blood and tissues and is capable of giving rise to those grave constitutional symptoms that are familiar to all. So, if the poison is produced locally, its effects are felt over the entire organism.

The contribution of Oertel, made in 1888, on the pathology of epidemic diphtheria, in which he described the peculiar form of cell-death found in the affected parts of the throat,

in the neighboring lymphatic glands, in the spleen, Peyer's patches, and mesenteric glands, had indicated such an action of the virus. In a series of experiments on rabbits, guinea-pigs, and kittens, made by Prof. Welch and myself in the pathological laboratory of Johns Hopkins University during the past year, we have been able to confirm and extend the observations of Oertel in human diphtheria, and we have described lesions in the seat of inoculation, contiguous lymph glands, as well as those in the most remote parts of the body, in the spleen, kidneys, adrenals, intestinal epithelium, and lymphatic apparatus, in the liver, lungs, and heart, and we have, in common with other recent investigators, produced in rabbits and kittens diphtheritic paralysis.

The soluble poison of diphtheria has been isolated in a state approaching purity in recent times, and its properties have been studied somewhat by Roux and Yersin and Fraenkel and Brieger. As might have been anticipated, it has been found to be of peculiar potency, and its mode of action is so new and novel that it has opened up entirely new fields of research, and it is probable will introduce new conceptions into the subject of the action of chemicals on the animal organism.

As illustrating the intensity of the poison is the experiment of Roux and Yersin, in which they were able, by the use of 0.4 milligram of the substance obtained by evaporating to dryness, under proper precautions, the active culture fluid, to kill at least eight guinea-pigs, weighing each four hundred grams, or two rabbits, weighing each three kilograms. This poison is capable of producing in susceptible animals all of the local and constitutional effects of the bacilli save the pseudo-membrane; for the production of the latter the bacilli are necessary.

As interesting as these facts concerning the soluble poison are, it is the peculiar and most extraordinary property of this poison that when introduced in a proper fatal dose into animals it may cause no apparent effects for days, and the death of the animal may be delayed for days, weeks, and even months. This is a new quality in a chemical poison, and one of the greatest significance in the present instance,



for it is clear that although the membrane be destroyed early in the disease the individual may still die of the effect of the poison.

The chemical nature of this remarkable compound is not definitely known. It probably belongs to the albumens, yet it differs from our usual definitions of such compounds; it is non-crystallizable, and it has been called for the present the tox-albumen of diphtheria.

Enough has been said to show that diphtheria is both a local and a constitutional disease; that the primary lesion is a local one, and that the constitutional effects are secondary. But they are secondary only in time; in their importance on the bearing of the disease they are of the greatest moment and demand the most careful attention.

Concerning the existence of pseudo-membranous anginas not diphtheria, it is now quite certain that they do occur. In scarlatina, measles, and some other infectious diseases the pseudo-membranous anginas are often different from diphtheria. These false membranes may be of bacterial origin, and in the scarlatinal pseudo-membranous angina a streptococcus is regarded as the exciting cause. And it is important to consider that in certain cases the pseudo-membranous anginas succeeding scarlet fever are diphtheria, and that scarlet fever appears to be a predisposing cause in the development of diphtheria.

There are pseudo-membranous anginas which occur independently of the acute infectious diseases, which may or may not be regarded as diphtheria at the onset. And it is recognized that diphtheria varies so greatly in its virulence that in this class of cases it is of the greatest importance to settle definitely their character. For on this knowledge will depend not only the treatment of the case under observation, but what is more important perhaps, the measures that will be taken to prevent the spread of the disease to others in the same household and community.

The bacillus diphtheriæ I believe to be the true and only cause of diphtheria, and I hope to show that the discovery of it and the study of its morphology, biology, and physiology has not only enabled us to separate the disease diphtheria from other affections simulating it in ap-

pearance, but has provided us with a definite means of diagnosis and has taught us much concerning the prophylaxis of the disease. Nor is this all; it has given us hints and direction that must lead to the use of wiser and more effective measures of treatment.

The examination of a case of suspected diphtheria for the purpose of diagnosis, while not especially difficult, presupposes a slight acquaintance at least with modern bacteriological methods and the possession of a modest bacteriological outfit and a microscope of sufficient power. Notwithstanding Roux and Yersin have endeavored to popularize the method of such examinations, it is doubtful if the practitioner at the present time possesses the means and the knowledge to carry out the requirements; but as the necessity for bacteriological training is recognized more and more by the profession, opportunities will be afforded the student in medicine to become familiar with them.

The bacillus diphtheriæ is non-motile. It is about the length of a tubercle bacillus and two or three times as broad. Its morphology is among its most striking characteristics, and often renders its identification a comparatively easy matter, even on cover-slips made directly from the false membrane when associated with numerous other bacteria. It appears variously, "sometimes as a regular straight or slightly bent rod, with rounded ends; it is especially characteristic to find irregular and often bizarre forms, such as rods, with one or both ends swollen, and very frequently rods broken at irregular intervals into short, sharply-marked segments, with either round, oval or straight sides. Some forms stain uniformly, others in various irregular ways, the most common being the appearance of deeply-stained granules in a lightly stained bacillus." (Welch and Abbott.)

Cover-slips are stained with Loeffler's methylene blue solution. It is, however, the culture method that serves most effectually for identification of the bacillus. The bacilli grow on blood serum, nutrient agar and gelatine, bouillon, and even on steamed potato. They also find suitable conditions for their multiplication in milk.

The best medium for their growth is the blood-serum-bouillon mixture of Loeffler, on

which they increase with great rapidity. This medium is prepared by mixing three parts of blood serum from an animal, one part of bouillon containing one per cent peptone, one per cent grape sugar, and 0.5 per cent chloride of sodium, sterilizing and solidifying. Next to this medium they grow best on nutrient agar-agar containing four per cent to six per cent of glycerine.

In preparing tubes from the false membrane it is only necessary to introduce a sterilized platinum needle into the membrane and draw it over the surface of the culture medium. Several tubes are made in this way, and a little of the exudation is rubbed on cover-glasses. The latter are examined at once, while the tubes are placed in the breeding-oven.

The bacilli do not multiply, or only very slowly, below 64° Fahrenheit; they increase rapidly under favorable conditions at the temperature of the body. They are killed by an exposure to a temperature of 136.4° Fahrenheit for ten minutes.

The cover-slips from the false membrane may show at once that the bacilli are present, but the cultures on blood serum will show unmistakably the next day. The bacilli of diphtheria multiply with such rapidity on this medium that at the end of twenty-four hours a decided growth is found, while other bacteria are often held in temporary abeyance. Cover-slips made from this growth are then examined, and if the case was one of diphtheria the peculiar bacilli are readily made out.

To follow further the identification of the bacilli, plate cultures are made on glycerine-agar. The colonies under a low power ( $\frac{2}{3}$  in.) of the microscope are quite characteristic; and finally, if it is desired, their virulence may be tested on a guinea-pig or kitten.

Up to the present part of my paper I have endeavored to show that diphtheria is a specific disease, that it is the result of the development in the part primarily affected of a particular organism—the bacillus of Klebs-Loeffler; that this bacillus has been isolated in pure cultivations, and that it is capable of reproducing in animals experimentally the natural disease found in human beings. I have also pointed out that the morphological and biological prop-

erties of it are sufficiently understood to permit of its dilution in the part affected; that it is only found locally in the seat of inoculation, and that it is as characteristic of diphtheria as the tubercle bacillus is of tuberculosis, and that in a similar way it may be used as a means of diagnosis. I have alluded to the light which the detection, isolation, and study of this bacillus has thrown on the prophylaxis of the disease and the suggestions it has given for the treatment of it. With a brief reference to these aspects of the subject I will close my paper.

In an article contributed by Loeffler to the *Berliner Klin. Wochenschrift*, in 1890 (*Welche Maasregeln erscheinen gegen die Verbreitung der Diphtherie geboten?*), he considers the measures which should be carried out in securing prophylaxis in diphtheria, and his conclusions are:

1. The cause of diphtheria is the bacillus diphtheriæ, and it is found in the exudation of the diseased mucous membrane.

2. The bacilli are thrown off with the membrane. They can be deposited on every thing in the neighborhood of the diseased.

3. The bacilli are capable of causing infection in others as long as the slightest trace of membrane is still present, as well as for a number of days after the disappearance of the membrane.

4. Those sick of diphtheria are to be carefully isolated and kept in isolation as long as bacilli are found in the secretions. Children who have had the disease should be kept from school not less than four weeks.

5. The diphtheritic bacilli retain their vitality in pieces of membrane for four or five months. It is therefore necessary to treat every thing that may have been infected by the patient, such as wash, bed-clothes, glasses, dishes, cloths, etc., with boiling water or live steam, while the room in which the sick has lain must be carefully disinfected. The floors are to be washed with a warm solution of bichloride of mercury, 1 to 1,000, and the walls and furniture are to be rubbed down with bread.

6. Investigations concerning the vitality of the bacilli in damp surroundings are not yet completed. They are probably more resistant



under these conditions. Damp and dark homes seem to be favorable for the preservation of the vitality of the diphtheritic virus, hence such homes have to be emptied and opened for the purpose of drying them and for the entrance of light and air. In change of places of living it is especially important that a careful disinfection of the infected home and its contents be made.

7. The bacilli increase outside of the body at 64° Fahrenheit. Milk is an excellent medium for their multiplication. Great care is necessary not to use milk that may come from dairies in which diphtheria is prevailing.

8. Diphtheria of many animals—pigeons, hens, calves, and pigs, is not produced by the same germ that causes the human disease. These animals are not to be feared as sources of human diphtheria. Nothing positive can be said at this time of the diphtheria of cats.

9. Lesions of the mucous membrane favor the invasion of the virus. Susceptible individuals may become affected without such previous lesion.

10. In times when diphtheria prevails it is of importance to have the mouths, noses, and throats of children clean. For this purpose weak sublimate (1 to 10,000) or an aromatic wash is to be recommended.

The last communication by Loeffler to this matter has for its subject the therapeutics of the disease (*Zur Therapie der Diphtherie, Deutsche Med. Wochenschrift*, 1891, No. 10.) In the experimental examination of various drugs and agents which have been used or promised good results in the treatment of the disease, he has endeavored from the beginning of his inquiry to so conduct his work that the practical problem should be approximated as closely as possible and a practically useful result be obtained.

In combating the diphtheritic bacilli there are two points to be overcome:

1. To prevent the settlement of the bacilli in the intact mucous membrane of well persons and on the adjacent unaffected mucous membrane of those suffering from the disease. This settlement of the bacilli is to be prevented either by applying to the healthy mucous membrane such substances as hinder the development of the bacilli, or what is better, perhaps,

by destroying in the shortest time possible the somewhat non-resistant bacilli which have settled there. It is evident that the means must be such as will not injure the mucous membrane itself or affect the body by its poisonous properties.

2. The bacilli in the pseudo-membrane must be killed in order to prevent the spread of the disease in the person already affected and to remove the danger of transmission to others.

For the proper investigation of these features it was necessary to use a culture medium in which the bacilli grow as rapidly as in the throats of children, one which is easily and perfectly capable of observation and that admits of being maintained at the proper temperature. By the use of the blood serum-bouillon medium Loeffler believed he had secured these requirements.

His method was to inoculate such culture-tubes with a dilution in water of the bacilli by drawing a platinum needle carrying a minute quantity of the suspension of the bacilli over the surface of the solidified serum. Placed in the breeding-oven they showed a uniform coating of colonies after twenty-four hours. Into these tubes of fresh colonies, representing the bacilli in contact with the healthy mucous membrane, the reagent was brought and the contact allowed varied from momentary (the fluid being poured off immediately) to 10, 20, or 30 seconds, corresponding to the length of time one can gargle with comfort.

As soon as the reagent was removed a fresh transplantation of the colonies treated was made and the results watched and noted.

If the colonies of the original tubes inoculated with the suspension of bacilli are permitted to grow for several days, a layer of colonies about  $\frac{1}{2}$  mm. thick is obtained. This represents the growth in the superficial portions of the mucous membrane. Tubes prepared in this way were tested also, and a large number of reagents were employed. I will give one case as an example of Loeffler's method, and then his conclusions:

A solution of corrosive sublimate of the strength of 1 to 10,000 by momentary contact would destroy the fresh culture (twenty-four hours old); with a dilution of 1 to 20,000 only

a few colonies remained; but after twenty-four hours longer the growth remaining after treatment with 1 to 20,000 developed into strong colonies. Essentially weaker was the effect of a 1 to 10,000 solution on the older cultures. A solution of 1 to 2,000 with a contact of twenty seconds had not penetrated the deeper layers; but a similar contact with a 1 to 1,000 solution killed nearly all in the deeper layers. Stronger solutions killed all colonies. Cyanide of mercury proved effective, and has less of the metallic taste. Carbolic acid was satisfactory also.

Hence, in conclusion, Loeffler recommends that as a prophylactic a gargle be used every three or four hours, consisting of a solution of bichloride of mercury of 1 to 15,000 to 1 to 10,000, or cyanide of mercury of 1 to 10,000 to 1 to 8,000. Chloroform-water is useful for the same purpose, and not unpleasant; and a 1 to 500 solution of thymol in twenty-per-cent alcohol.

In handling those sick of the disease he suggests using one of the weak gargles every one or two hours, and a 1 to 1,000 solution of sublimate; a three-per-cent solution of carbolic acid in thirty-per-cent alcohol, or a mixture of alcohol and turpentine, equal parts, containing two per cent of carbolic acid, every three or four hours. Finally, pencilling the throat with a five-per-cent solution of carbolic acid is added.

These solutions have been proven experimentally, not only to prevent the settlement and development of the bacilli on the adjacent healthy mucous membrane, but to destroy the bacilli in the deeper layers of the culture  $\frac{1}{2}$  mm. thick. And in two clinics in Berlin, one of Dr. Mosler and the other of Dr. Strübing, in which the carbolic acid and sublimate solutions were used respectively, the most excellent results were obtained; and whereas by ordinary methods of treatment virulent bacilli were found in the throat after three weeks, when the above methods were followed they could not be found after a few days.

Hence the disease is not only shortened by this treatment, but the affected individual ceases to be a menace to others much earlier than he would otherwise be.

In conclusion, I wish to emphasize the fact that in the last decade, by the employment of modern methods of research, more light has been thrown upon this disease than in more than a half century before since its description, and that there is probably no other disease, hardly excepting tuberculosis, that has been rendered so clear in its etiology and pathology, so amenable to prophylaxis, and so promising to treatment.

LOUISVILLE.

## Societies.

### KENTUCKY STATE MEDICAL SOCIETY.

Thirty-sixth Annual Meeting, held in Lexington, May 27, 28, and 29, 1891, George W. Beeler, M. D., President, in the chair.

[CONTINUED FROM PAGE 19.]

Dr. W. L. Rodman read the report on Brain Surgery. (See page 36.)

### DISCUSSION.

Dr. J. G. Carpenter, Stanford: I had the pleasure, eighteen months ago, of doing two operations upon the skull. They were both in cases of hemiplegia of the right side and motor aphasia. There was also depression of the skull. In one case the operation was a success, and in twenty-four hours after the operation the patient could speak. At the end of two or three more days he had regained perfect use of the right arm. This patient was an epileptic. He made a good recovery. I may say that in addition to the depressed skull there was a cyst upon the brain which was evacuated and drained. Six months after recovery he went on a protracted spree and had a violent convulsion, and died. There was no *post-mortem* made. Ten days ago I trephined a man's skull for symptoms of the same kind, the young man having become insane, and it was hoped that that his mind might be restored by an operation, and that it would prevent death. A button of bone was removed and a small cavity containing about half an ounce of pus was found, which was evacuated. The patient's mental condition after recovery from the anesthetic was much improved. He was more rational



in every respect. The wound healed up, but on the seventh day the patient succumbed. There was no rise of temperature or increase in the pulse or respiration, no indication that the brain was affected by the operation, but suddenly the temperature arose to  $104.5^{\circ}$ , and the patient died in twenty-four hours. I believe, from the chronic condition of the brain found on *post-mortem*, that the patient would have died in a few days if the operation had not been done. I held a *post-mortem* upon an epileptic who had had symptoms similar to this young man, and the brain was in a like condition.

Dr. M. F. Coomes, of Louisville, read on Methyl-Violet in Treatment of Tuberculosis. (See p. 38.)

#### DISCUSSION.

Dr. T. B. Greenley, West Point: I had the good fortune to be in the doctor's office after the treatment of the second case, which had been under observation about two weeks. He described to me the condition, and I could see where the disease had extended, and then in the healing process a cicatrix formed all around, and the nose was virtually well except in a place or two. It seemed to me like magic that any such trouble, as was represented and seemed to have existed, should have made such rapid progress in the way of healing in such a short time. I am glad Dr. Coomes has made the report.

Dr. W. F. Boggess: Having been acquainted for some time with the aniline dyes, I have been using the fuchsin dye in ulcers and sores of the character mentioned in the paper with marked success. I tried it on a case of epithelioma of the hand as large as a split egg. I used it locally and injected it at the base of the growth. The case did beautifully, and as far as I can see now the aniline dye is doing the case much good. Of course the case has not gone far enough to make a positive assertion as to the curative effects of the remedy upon an epitheliomatous growth.

At the suggestion of Dr. Marvin, I made use of Dr. Coomes' secret in the treatment of diphtheria. I tried the methyl-violet in diphtheria. I had four cases with two deaths. I have since had twelve cases of diphtheria, and in all

of them I have used the methyl dye both locally and internally. I have been using two grains every three or four hours, and have painted the throat with a three-per-cent methyl-blue every two or three hours, and the improvement has simply been wonderful. The amelioration of the bad symptoms has been remarkable. I have not seen any thing work so beautifully as methyl-blue in diphtheritic cases.

As to the internal administration of the methyl dye, I noticed, about four hours after the first dose was taken, that the kidney secretion increased and the urine was rendered blue and then opaque. This rather alarmed me; not being familiar with the action of the methyl dyes upon the kidney, I was a little chary of giving more. There has been no albuminous urine, and no casts, nothing to show there was irritation of the kidney. But the discoloration of the urine has now disappeared after cessation of the remedy, the urine finally becoming green and then assuming its normal color.

In addition to the methyl preparation in diphtheria, I have resorted to the ordinary treatment. Having used it in twelve cases without a death, with no special paralysis following, I feel confident it is the remedy *par excellence* for such cases.

Dr. Simon Flexner, of Louisville, read on The Diagnostic Value of the Diphtheritic Bacillus." (See p. 40.)

#### DISCUSSION.

Dr. John C. Lewis: I rise to commend the paper read by Dr. Flexner, inasmuch as it embodies a considerable amount of research. I happened to be in New York City November last, and heard a paper read by Dr. Seibert, in which he based his treatment on the same pathology as has been indicated by the essayist. He took the ground that the bacilli, instead of locating themselves upon the surface where the exudate is, are found in the deeper layers of the mucous membrane, and to reach the seat of the bacilli it is necessary to use a hypodermic syringe of a peculiar pattern, by which the medicinal agent can be brought directly in contact with them.

Dr. C. W. Chapman, Louisville: The paper read by Dr. Flexner is one that commends itself to the entire medical profession. The

question has certainly been well presented by the author; at the same time there are some points in connection with the subject which would seem to cause the medical profession to hesitate a while longer before finally accepting the diphtheritic bacillus as a verity. In the first place, in the researches of Prudden in twenty-four cases they have not been recognized to the extent that they should be, and no one doubts the ability of Prudden as a pathologist. In these twenty-four cases he failed to find the Klebs-Loeffler bacillus in a single instance. Prof. Welch, of the Johns Hopkins University, attempted to explain this by saying that the cases of diphtheria were not primary, and that they came on after scarlatina or measles. Now, it seems to me that if the bacillus is the cause of diphtheria, no matter if it develops after scarlet fever, the bacillus would be there, and yet Prudden failed to recognize it in a single instance in twenty-four cases. Another thing that makes us hesitate slightly is the fact that a bacillus similar to and almost identical with the Klebs-Loeffler bacillus appears in the throat of healthy persons. It is true this is rare, but cases do occur in which this bacillus is present. There is also another bacillus known and called the pseudo-diphtheritic bacillus. It is identical with the bacillus of diphtheria, except that it has no pathogenic properties, and does not cause diphtheria upon being inoculated. The practical deduction is this, we have no time to send bacteria on to be inoculated before we can diagnose a case. Therefore, I say, it is a question that not only needs further and deeper research, but more time to be entirely proved.

Dr. Samuel E. Woody, Louisville: I am convinced that we are now in a decade in medical discovery second only to that of the discovery of the bacillus of tuberculosis, and the able paper we have just heard confirms me in that opinion. The disease (diphtheria) under consideration is an important one, for, coming to our shores less than a century ago, it has spread until it is now the scourge of all our large cities. I believe the time is not far distant when we shall learn its cure. Above all it will be refreshing to us to eliminate those cases of diphtheria wherein everybody is curing nineteen cases out of twenty, and will justify

the work of more careful observers in the diagnosis and treatment of true diphtheritic cases which are so fatal.

Dr. Simon Flexner, Louisville: The remarks of Dr. Lewis are to be considered partly on histological grounds and partly on prudential ones. The assertion that the bacilli invade the deeper parts of the mucous membrane of the throat is opposed to the views of all investigators, including Loeffler himself. Then, what we know of the manner of the production of the false membrane, how it begins in a lesion, very slight perhaps, and altogether imperceptible at the time, and then spreads out over the adjacent mucous membrane, should make us chary, I think, of puncturing the mucous membrane. Again, our knowledge of the rôle played by the tox-albumen of diphtheria must caution us not to resort to any means that may increase the liability of the absorptions of this poisonous product. Dr. Chapman's pertinent questions have been largely answered in my paper. Prudden's work has been considered, and the doctor failed to notice, doubtless, that I referred to a more recent communication than the one mentioned by himself, in which this excellent authority expresses himself as convinced of the etiological rôle of the diphtheritic bacillus.

Concerning the positions of the pseudo-diphtheritic bacillus it must be admitted there is need of more light. But a few things may be said in defense of the doubt arising from this source. It is found very rarely; it is present in much fewer numbers than the diphtheritic bacillus, and aside from its lack of pathogenic properties it has just been pointed out by Dr. Abbott that it grows in potato in a different manner from the true bacillus. This is quite sufficient in itself to distinguish the two and to stamp it as a distinct species.

With reference to the fact that Loeffler once found bacilli having all the properties of the bacillus diphtheriæ in the mouth of a healthy child it is to be said, in the years since his first announcement, although he has examined numbers of children, he has not encountered it again. And as it is recognized that certain persons are not susceptible to the disease without previous lesion of the mucous membrane of the



throat, and that there are degrees of virulence exhibited by the pathogenic bacilli, it is conceivable that a case might rarely occur in which bacilli were present without exciting the disease.

Two cases of Laparotomy was the subject of a paper by Dr. David Barrow, of Lexington.

Case 1 had been diagnosed intestinal obstruction by the attending physician. Patient was seen by consultant on August 25th. She had had constipation with pain and vomiting since the 20th. Purgatives were of no avail. On the 22d the vomiting became very distressing, and the abdomen grew very tender. On the 23d the vomited matter was stercoraceous. Abdomen distended and tympanitic. Patient was sixty-eight years old and quite fleshy. Previous health had been good. Temperature normal; pulse 85. An intestinal tube was introduced and large enemata of water and glycerine were thrown into the bowel, while calomel, 15 grains every two hours, was given *per os*. On the 24th the vomiting ceased to be stercoraceous, and blackberry seeds and grains of corn came away. Four inches to the left of the umbilicus dullness was found and some induration. On the 25th the stercoraceous vomiting recurred and enemata failed to bring away any thing. Laparotomy was done and the cause of obstruction was found to be a gall stone in the ileum, which measured three and five eighths inches in circumference. The gut was incised and the stone removed. The cut gut was closed up with the Lembert suture and the abdominal incision with interrupted sutures. Irrigation and drainage were deemed unnecessary. Time of operation, forty minutes. The patient died in six hours after the operation from shock. The author believes that procrastination was the cause of the fatal result; but the symptoms pointed so clearly to fecal impaction that it is doubtful if they warranted earlier interference.

Case 2: Patient, aged eighty-two years, January 19, 1891, was taken suddenly with pain in the right inguinal region. He had worn a truss for eight years for a small inguinal hernia. He was nauseated and weak, and noticed a slight swelling at the external abdominal ring. The patient was tall and thin, and for some months had been debilitated.

His physician made a diagnosis of strangulated hernia and controlled pain with opium. The author saw patient on the morning of the 20th. The diagnosis of strangulated hernia seeming to be correct, and taxis even under chloroform failing to remove the tumor, an operation was decided upon. Skin and superficial tissues being divided the sac was found injected. On incising it a knuckle of small gut presented. Passing the finger down to the ring the constriction could be felt; but the gut was movable within the ring. Finding that the constriction was inside the abdominal cavity the herniotomy was converted into a laparotomy by properly extending the incision. Considerable fluid was found in the peritoneal cavity. A constricting band was found about one half inch back of the external abdominal ring. This was easily divided. The gut on being released was drawn out and inspected. The lumen was occluded, but the mesentery was not involved. The gut with proper precautions was returned, and the cavity closed in the usual manner. The time of the operation was about one half hour.

The patient made a good recovery, being well in five weeks.

The author's theory of the pathology of this case is that "there had probably been some peritoneal inflammation in the region of the external ring, caused by the existing hernia, and a band had at some time previous been thrown out, and behind this the gut became constricted. The constriction being near the external ring the strangulated gut projected into the dilated canal, and produced the swelling that was present."

In conclusion the author said: "In reporting these cases it is not my desire to speak of the forms of intestinal obstruction nor of the symptoms or operative procedures, but more to urge upon the surgeon the necessity of prompt action, and upon the general practitioner the importance of having the surgeon called early in consultation.

"The general practitioner should not wait to make a diagnosis before summoning the surgeon, but should have him called as soon as intestinal obstruction is suspected and the two should then watch the case jointly, ready at

any time to interfere should it become necessary. We must remember that the symptoms in some of these cases are not indicative of so serious a condition as really exists, and sometimes when there is complete closure of the gut the patient's general condition may seem fairly good, even to the time of gangrene appearing. Should we wait to make a positive diagnosis in some of these cases before operating, the operation will certainly be too late to offer much prospect of relief. The danger of an exploratory incision *per se* is not great, and should unhesitatingly be resorted to when necessary. It is only when there is already marked depression that the shock attending laparotomy is so quickly fatal. The large mortality in laparotomy for intestinal obstruction in the past should not deter the surgeon.

"The operation has usually been done as a *dernier ressort* and upon dying patients, and death was of course the inevitable termination. There can be no reason why many cases of intestinal obstruction should not recover after laparotomy, provided the operation be done in time. The operations are often simple, and the necessary manipulation to remove the obstruction may be slight. In doubtful cases, where exploration has been resorted to, I have never seen the abdomen opened without finding a condition justifying the operation, but have occasionally seen the procrastination continued until the patient was beyond any possible relief. Have also known patients to die without any surgical effort to relieve them.

"The medico-legal aspect of these cases must influence the surgeon's action, and with the present unsettled state of the professional mind relative to exploratory incisions a conscientious and competent surgeon might be greatly harassed and injured in reputation and financially should he open the abdomen and find nothing there requiring such a procedure. After using the recognized non-surgical methods to perfect his diagnosis, and failing, the symptoms continuing to indicate intestinal obstruction, the surgeon should make an exploratory incision, and the profession should support him in the procedure, even if he fails to find a local condition requiring the operation. In chronic cases the operation, even when the diagnosis is clear, is

often put off from day to day on account of some deceptive improvement, and when it is finally resorted to the patient is much exhausted and is in a most unfavorable condition for an operation. If there be one thing that must impress the physician in studying the past history of intestinal obstruction, it is the very fact that all surgical interference, when it has been resorted to, has been usually done when the case was hopeless, and that in the future, if we can ever succeed in decidedly reducing the present mortality rate, it will be due largely to the early co-operation of the general practitioner and the surgeon, and in the prompt performance of laparotomy when it becomes necessary."

#### DISCUSSION.

Dr. T. B. Greenley, West Point: I have had the misfortune to see a half dozen cases of bowel obstruction, mostly in consultation, but never got the privilege of performing an operation until too late or when the patient was almost in *articulo mortis*. One case occurred in an elderly lady, who had had a severe attack and finally got through it apparently well; but in about a month or six weeks afterward she had a second attack and died. This patient lived several days after the commencement of the second attack. We had an opportunity of making an autopsy in her case, and we saw how simple it would have been, if permitted to operate, to have saved her life. The ileum was bound down by fibrous bands due to inflammatory action, etc., and the patient had symptoms similar to those outlined in the paper. It is to be regretted that the surgeon can not have the privilege of operating in some of these cases before the patient is in the throes of death.

Dr. C. Skinner, Louisville: I have had some experience in the line of abdominal work mentioned in the paper that has been read, but, just as Dr. Barrow has mentioned, it has been difficult to get consent to perform an operation. I desire to mention one point; it has occurred to me frequently. Would it be advisable for the physician and the surgeon in charge to assume absolute control of the patient and force the operation? If the case terminated fatally of course the surgeon would be censured.



I am glad to know that the doctor is in favor of an exploratory incision in doubtful cases.

The second case reported is one of interest, showing that a constriction inside of the cavity was mistaken for a hernia. That fact of itself demonstrates that it is impossible for the surgeon to tell what he will find when he begins to operate. I know of a case where a surgeon was called to operate on a supposed intestinal obstruction which proved to be a strangulated hernia, just the opposite of what Dr. Barrow found.

Dr. J. G. Carpenter, Stanford: Dr. Barrow in his paper has conclusively shown that delays are dangerous. We all know that the surgeon uses every precaution to make the wound aseptic, and when he does this it is really harmless. Where we have an obstruction of the stomach, and the bowel above the point of obstruction is distended, where hyper-distension has taken place, and there is excessive fluid or secretions which should come away, the stomach should be evacuated by the physician. As soon as he suspects this he irrigates the stomach, washes it out so that it may collapse. The more distension there is above the point of obstruction the more difficult the operation will be, and the more surely will structural lesions take place. The bowel below the seat of obstruction is bound to collapse, and by pressing from below upward we easily find the point of obstruction.

Dr. B. L. Coleman, of Lexington, read the report on the Practice of Medicine.

The author discussed the subject from the standpoint of bacteriological pathology, and showed how the pathology and therapeutics of the medicine of the future, like the surgery of the present, must move in measure with the germ theory of disease.

#### DISCUSSION.

Dr. William Bailey, Louisville: I feel that the paper read by Dr. Coleman is too valuable and too well written to let it pass without discussion. I ask particular attention to the possibilities opening at present to the profession of medicine. I think we are but on the threshold of the question of the germ theory of disease. Not only must we consider it in the

etiology of disease, but likewise in the various toxic principles developed both in physiological and pathological processes. I think I may safely prophesy that in the years to come knowledge with regard to these matters will be full, definite, and of the greatest diagnostic value; so full indeed that the ignorance of this era will be wondered at. I think the policy or plan that is being pursued in the investigation of this subject is so exact and so well defined that nothing but good results must come from it, and I think likewise that as a result of study in this direction our therapeutic measures will be advanced and far superior to any thing we have at present.

Dr. P. Thompson, Henderson: I do not feel competent to discuss the paper except to commend it and to refer to the points brought out as to the contagion of tuberculosis. I believe, and I really know and feel, that investigations which have been made and are being carried on in this important branch of pathology are ones which every physician in the world should be proud of, and I believe the time will come when we will be ashamed of ever believing in the heredity of tuberculosis. I think the signs of the times point that way. I do not believe the majority of individuals that suffer and die from consumption are victims of heredity. I do not believe that heredity prepares the soil, but I think it has been clearly demonstrated by a number of observers that the tubercle bacilli not only exist in the air but in the food and water and milk that we drink.

There was one point the doctor referred to which might be carried a little further, and that is with reference to the sputa. If the sputa be received in some receptacle and not allowed to dry, there is very little if any danger of other persons contracting the disease. I can readily understand how a person handling and removing the vessel containing tuberculous sputa spilled on the floor or clothes may contract the disease. I believe every consumptive in the world, especially if confined to house or bed, should not only have a receptacle for sputa, but that it invariably should contain a germicide. You may use carbolic acid, bichloride of mercury, or any other germicide.

I agree with Dr. Bailey that the time is not far distant when we will be able to rid ourselves of grave apprehension of the dread and horror of contamination through drinking-water, milk, etc. I do not think it necessary for a man or woman to live in dread because his or her father or mother died of consumption. I expect to see that day come when this negative doctrine will be a great comfort to the people of this world. If the State Board of Health is worth any thing I think it will impress this point more and more upon the people of Kentucky, that there is no danger from such a source.

One more thought. I throw it out to see if any body agrees with it. I believe that tuberculosis is frequently conveyed to the human system in food. I made this statement to the State Board of Health, that it has been demonstrated that the Jews as a people do not suffer with consumption in the proportion that the American people do. An eminent writer in a recent article proves from actual statistics of the Jewish race for the last ten years that this is true. It has certainly been my own observation, and I am not sure but that the meat the Jew eats and the milk he drinks are one of the sources of infection, hence the inspection of the meat they eat.

Dr. E. R. Palmer, Louisville, said the subject of bacteriology was one in the present status of medical science which the Society could not afford to pass by without extensive discussion. He would take issue with some of the statements made in the matter of heredity. It is a clinical fact that consumption runs in families. It is the transmission from parent to offspring of the tissue, structure, or condition favorable to the development of the germ, and not the transmission of the germ itself. No one holds that any of the germ diseases are transmitted directly from parent to offspring, but that the conditions favorable to reception and development of the germ are unquestionably transmitted.

IN France for many years a tax has been levied on doors and windows, but this has now been abolished in the interests of hygiene.

## Reviews and Bibliography.

**Scheme of the Antiseptic Method of Wound Treatment.** By DR. ALBERT HOFFA, Private Docent of Surgery in the University of Würzburg. Translated from the German, with Additions, by special permission of the author, by AUG. SCHACHNER, M. D., Ph G., Louisville, Ky. Louisville, Ky.: The Bradley & Gilbert Company. 1890.

This scheme is an aim to present in the form of a chart a conspectus of the antiseptic method of wound treatment. Under the several headings are embraced antiseptic applications, suture and dressing material, mode of preparation, operation, and dressing by both the antiseptic and aseptic methods, and special modification of Lister's treatment.

At a glance we may learn from this chart any approved method of antiseptic wound treatment, as well as the name of the author by whom suggested and practiced. It would require much time and the study of volumes to gain so clear and comprehensive a conception of contemporary antiseptics as can be here gained by a very brief study. The translation is well done, and the few additions by the translator are well in line with the original work, and quite pertinent to the plan. D. T. S.

**A Manual of Clinical and Practical Pathology.** By ESSEX WINTER and F. J. WETHERED. Philadelphia: P. Blakiston & Son.

This little work, though not as complete as others of the same class, furnishes a valuable addition to the libraries of those interested in the subject of pathological investigation. The formulæ for the various stains and reagents are the very best; also the methods of their application. H. M. G.

**Examination of Urine.** By JAMES TYSON, M. D. Philadelphia: P. Blakiston & Son.

This excellent manual of Urinary Examination makes its appearance clothed in the garb of its seventh edition. Very few important changes have been made in the present volume. For terseness of style, accuracy of description, and completeness, the work commends itself to all, especially as a work of handy reference. H. M. G.



## Correspondence.

## LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The influenza death-rate for the metropolis during the past month having gone up from ten per week to nearly thirty times that number, it is not wonderful that "remedies" for the complaint have set in with almost as great severity as the disease itself. For instance, sulphur, so much talked and written about both in and out of Parliament lately, has been widely used. Camphor is another preventive which has been much tried; air impregnated with ozone, peroxide of hydrogen, iodoform, hypochlorous acid, carbolic acid, cresylic acid, etc., seems to be of little or no avail, and in some cases it has been found that all antiseptics which tend to irritate the mucous membrane to any extent actually render it more sensitive to attacks of the epidemic. A distinguished scientist says that the sputa and other extruded matters of influenza patients are comparatively rich in known and unidentified pathogenic germs, many of which can be cultivated. Moreover, such cultivations remain unaffected and are only partially interfered with by the presence of those antiseptics previously named, and by that of various other substances. But, on the other hand, these cultivations are prevented or greatly retarded by such products as eucalyptol, the perchloride and periodide of mercury, the oil of eucalyptus globulus ver., and in a lesser degree by thymol, the oils of pinus pumilio, sandalwood, and the Japanese oil of peppermint. In practice, too, it has recently been found that the said oils, especially that of eucalyptus, if constantly inhaled, act very effectively as a prophylactic against the scourge in question.

Strychnine as an antidote to snake-poison has long been known in Australia, but it has been reserved for Dr. Mueller, in the Colony of Victoria, to explain in a definite fashion the theory and practice of that rather formidable remedy. This practitioner, who says that out of about one hundred cases (some of them at the point of death) treated by this method, only one has been known to fail: Dissolve 1 part of

nitrate of strychnine in 240 parts of water, mingled with a little glycerine. The mixture is injected under the skin on any part of the body, the neighborhood of the bitten part, however, being preferred. Strychnine and the poisonous secretion which the snake's fang injects into the wound are described as "thoroughly antagonistic," and Dr. Mueller says that no hesitation need be felt in pushing the use of the drug to quantities that would be fatal in the absence of snake-poison. The "one failure" referred to is attributed to the mistake of discontinuing the operation after a grain and a quarter of strychnine had been injected.

Two medical men have recently been able to carry out a direct comparison of the two interesting new therapeutic products respectively known as spermine and piperazine, which many chemists believe to be identical. They have arrived at the conclusion that although there certainly is a good similarity between these two alkaloids and some of their salts they are really not identical, and the phosphates and the bismuth iodides of both bases are different from each other in the shape of their crystals when examined under the microscope. Piperazine, which is very soluble in water, and is capable of dissolving uric acid much better than lithia, has been found to possess another very curious property. It appears that, when this alkaloid is given in doses of half a gram to one and a half grams, it passes through the human system unchanged, and may be found in the urine in a very short time after it has been administered. On the other hand, the alkaloid spermine, when prepared in the most recent manner by a method resembling that published in 1879 by Schreiner, gives on analysis a formula  $C_{10}H_{26}N_4$ , while the analysis of piperazine gives  $C_2H_5N$ . If this difference should be confirmed, it is said that spermine can be neither identical nor isomeric with piperazine. However, the question of identity or non-identity is yet in a very unsatisfactory state, and it is still thought that it has yet to be proved that the two products are really distinct. Meanwhile the extraordinary tonic properties ascribed to both preparations, and the solvent action of piperazine upon uric acid,

which has been placed beyond doubt, makes the latter one of the most interesting new products brought forward during the last twelve months.

Nothing could be so eloquent a proof of the value of recent legislation aimed at the prevention of disease as a return which has just been issued in response to a motion made by Mr. Lees Knowles. The Infectious Diseases Notification Act has been voluntarily adopted in nine hundred and forty-six districts, and fifty-three towns effect the same under local acts. The result is, that including London more than four fifths of the population of England and Wales is now living under this salutary law. Moreover, many places have availed themselves of the power to require the local authorities to be informed of cases of other diseases than those set down in the act. Sixty districts added measles; fourteen added whooping cough; four included German measles, while two required the notification of chicken-pox. Six important towns have substituted the general act for their pre-existing local regulations. Probably there never was a piece of permissive legislation which met with such prompt and wide-spread adoption. Much less general has been the adoption of the Infectious Diseases Prevention Act and the Public Health Amendment Act. The former law has been accepted by three hundred and fifty four districts outside of the metropolis, including a population of about seven millions, while the latter act is in force wholly or partially in only three hundred and ninety-one districts, with a population of a little less than eight millions.

The death is reported, from influenza and congestion of the lungs, of Sir Prescott Gardiner Hewett, Sergeant Surgeon to the Queen and Surgeon in ordinary to the Prince of Wales. The late baronet, who was in his seventy-ninth year, caught a chill in January last which never left him. Sir Prescott, who was a son of the late Mr. Hewett, of Bitham Hall, near Doncaster, for many years held a distinguished position as a surgeon and on his retirement received a baronetcy in consideration of his "high professional character and distinction." He was Consulting Surgeon to St. George's Hospital,

and for some years was President and Professor of Anatomy and Surgery to the Royal College of Surgeons.

Dr. Snell persists in his opinion that there is no reason for supposing that nystagmus, so common among miners, is attributable to working by the imperfect light of the safety-lamp. The fact that the complaint is found among the workers with naked lights is in itself sufficient to throw doubt upon the long-prevalent theory. The Government Inspector of Mines for the Midland District notes, on Dr. Stokes' authority, the case of a man who, after working with the Davy lamp for fourteen days without injury, proceeded to work at a pit where candles were used. He had been employed there for three and a half years, and during the last twelve months he experienced symptoms of nystagmus, and had ultimately to leave work and seek medical aid. Dr. Snell has collected a mass of facts and a record of a large number of instances of men suffering from the affection which will, he believes, be very corroborative of the views he has before set forth, namely, that the prime cause of the affection is to be found in the position assumed by the miner at his work.

The Prince and Princess of Wales will visit St. Mary's Hospital during the latter part of July to lay the foundation stone of a block of buildings about to be erected, which will complete the hospital in accordance with the original plan.

Mr. Francis Galton has recently publicly explained his method of personal identification by means of finger prints. It is a curious fact that the small papillary ridges on the bulbs of the fingers and on the inner surfaces of the hands and feet persist from youth to age, and are the most unchanging and apparently the surest means of pronouncing on any human being's identity. With exact anthropometric measurements and descriptions science is circumventing the criminal classes, and Mr. Galton thinks that the time will come when, to the evil-doer, his pictures of the finger-tips will be a means of deciding who's who that the law-breakers will positively detest and dread.



## OUR GERMAN LETTER.

Since the first wild excitement and enthusiasm following Koch's early publications have died out, the public, and, what is more important, the profession have shown a disposition to pass the death sentence on a remedy which did not fulfill the first exaggerated expectations. As a result a great many, a majority, of those who first experimented have given up further research entirely. On the other hand, a number of cool heads and patient hands have quietly proceeded with the investigation, and it is of what these have attained that I wish to write. There can be no doubt that the end of a great many patients has been hastened by the first use of large doses of the "tuberculin," as Virchow's testimony and that of many other pathologists amply prove. At the same time with these same large doses there were some cases relieved, temporarily at least. The *post-mortem* findings in a great many cases which had been injected with tuberculin and the intense nature of the local and general reactions rendered gradually the experimenters very cautious, although contrary to the convictions and advice of Koch, and they began the use of extremely small doses, using tenths of milligrams where milligrams had been employed before. This modification of the dose has rendered the danger of the treatment apparently almost nothing, and at the same time has given some results which are very flattering to hope.

At the tenth German Congress for internal medicine, held on April 7th, the chief subject of discussion was the Koch treatment. There were a number who expressed themselves as absolutely of the opinion that the danger of the treatment renders further experiments on human patients altogether unjustifiable. On the other hand, there were quite as many who held further research not only justified, but demanded. The renowned von Ziemssen expressed himself very positively for the treatment. He said: "From an experience won from more than a hundred cases I think that we can trust most fully Koch's discovery. It is true that the treatment needs many modifications, but according to my conviction it will lead to the best results for suffering mankind."

During the discussion of the Koch treatment at the twentieth Congress for Surgery, König, of Göttingen, said that he had attained results with small doses in cases of tuberculosis of mucous membranes, which were of a kind that the surgeon had not before been accustomed to. His experience was, that especially these cases were peculiarly suitable for the treatment. Under date of the 21st of May, Michelson, of Königsberg, reports three cases of tuberculosis of the mucous membrane of the nose, mouth, and pharynx in which cures were effected by means of doses so small that the general reaction (fever) was avoided, and the local reaction only produced in one case. One of his cases showed a postponed working of the tuberculin, the patient continuing to improve very rapidly after the discontinuation of the injections, only a very slight improvement having been reached during the injection period. These three patients were exhibited three to five months after discontinuance of treatment, no signs of relapse being present.

The *Deutsche Medicinische Wochenschrift* of June 11th contains a report from Guttman and Ehrlich of thirty-six cases of lung tuberculosis treated in the Moabit Hospital in Berlin under the new plan of small doses. Their plan of dosing was the following: Beginning with one tenth milligram, the injection was repeated daily, and increased by one tenth milligram until the dose of one milligram was reached. Then the injections were made every two days, and increased by two tenths milligrams until the dose of two to three milligrams was reached, when the increase of dose was made five tenths milligrams. When in this way a dose of one centigram has been reached in the course of, at the earliest, one and a half months, the injection of this dose every two days is continued for a time and then gradually reduced to a few milligrams, then again gradually increased as before. This treatment was modified in some cases to the "intermittent treatment." This consists in suddenly breaking off the treatment for two or three weeks, beginning with a slightly larger dose than was begun with the time before. The purpose of these small doses is to avoid fever reaction and to hunt out those patients who are particularly

oversensitive to the tuberculin. They find, as has been reported from many other sides, that the favorable working of the tuberculin depends by no means on the intensity of the local or general reaction. On the contrary, the dose must be so regulated that the general reaction (fever) will be almost or altogether avoided. The temperature of these thirty-six patients seldom reached  $38^{\circ}\text{C}$ ., and only in a few exceptional cases did it go higher. These small doses are looked upon as the cautious row of steps leading slowly but safely to the larger doses which can work the healing process. They gradually accustom the system of the patient to the tuberculin without any of the unpleasant symptoms which were at first experienced. In those cases which showed no especial sensitiveness to the treatment the dose was increased as rapidly as possible, in order to reach as soon as possible the larger doses of one milligram and more, and so lose as little time as possible.

Under the early plan of treatment those cases that had a daily temperature as high as  $38^{\circ}\text{C}$ . were considered as not suitable for treatment, but under this new plan these cases can also be injected. If the temperature increases under the small doses the treatment is discontinued, but the operator can feel the assurance that there is no danger of permanently rendering the condition of the patient worse. In those cases which show a decided sensitiveness to the tuberculin the scheme of treatment is modified in this way, that after allowing time enough for the fever to entirely disappear the treatment is begun again with a very much smaller dose than the last which produced the fever temperature.

These 36 cases embraced 18 men and 18 women. In the course of one to two and a half months the 18 women increased in weight 73 kilograms, an average increase of about  $8\frac{1}{2}$  pounds per woman; 14 of the men increased 43.8 kilograms, an average increase of about  $6\frac{1}{2}$  pounds; 3 of the men lost a small amount, and 1 remained stationary. The authors lay stress on the fact that these increases in weight were not in consequence of the systematic over-feeding, which they purposely avoided. It is further to be mentioned that nearly all the cases

showed a diminution in the quantity of sputum, as well as the often-mentioned change of the same from a pustular to a more mucoid character. In four cases the bacilli had disappeared entirely. Cough, night-sweats, and pain in the breast were very much lessened, and in very many cases the feeling of strength was very much increased. This plan of treatment has the further advantage that patients can be treated in the polyclinic. Heretofore the intensity of the reaction was such that the patient had to be kept under closest observation in the hospital. It is to be remembered that these observations have been made in the Moabit under the direct control of Koch.

One of the complaints against the present tuberculin is that an exact dosage is impossible because the strength of the tuberculin must vary. No one, of course, can guarantee that the tubercle bacilli will produce the same amount of tuberculin with unvarying accuracy, and as the active principle has not yet been isolated it is bound to be a question of doubt as to how much tuberculin (active principle) a given dose will contain. Further, as has been suggested by Czerny, it is possible that some of the impurities outside of the active principle are the factors which produce the fever and the unpleasant symptoms, while the active principle itself may produce no such effect. These questions remain still to be decided.

Dr. E. Grawitz, Berlin, in the *Deutsche Med. Wochenschrift* of May, publishes his very interesting experiments on thirty-two monkeys which were placed at his disposal by the director of the zoological garden. He selected monkeys as being the species of animal nearest allied to man, and offering at the same time the best opportunities for clinical observation. Twenty of these thirty-two were either killed by means of chloroform or died during the course of the experimentation—some from tuberculosis, some from intercurrent disease (diphtheritis). The first important fact determined was that some of the tuberculous animals gave fever reactions after injection, while others gave none at all. The same was true of the non-tuberculous animals; some showed no reaction whatever, others as sharp reactions as the tuberculous animals. Three apparently healthy monkeys were



injected; but one showed signs of reaction, fever, which persisted for three days, when the animal was killed by means of chloroform. The right lung was found intact; the left lung showed on the surface of the lower lobe a blue-red coloring, extending over about the half of the lobe, and not sharply bounded. The pleura was smooth. On cutting into the blue-red portion of the lung a bloody, serous fluid ran out. Nowhere was to be found a trace of tuberculosis. All the other organs were also entirely intact. The other two monkeys, appearing not to react, were not further observed until the ninth day, when they appeared sick. They both showed high temperatures, and one was killed. The *post-mortem* gave a pneumonia in both lower lobes, but no trace of tuberculosis. The other organs were intact. The remaining one retained the high temperature for a few days, then seemed entirely recovered, and has remained entirely well and lively. Further observations showed that there seemed to be no rule at all governing the reactions; they depended neither on the particular species of the monkey nor on individual bodily weakness. Simply some of the animals responded to injection with fever, others did not. At first, patients with lupus or other forms of tuberculosis, but showing no signs of phthisis, who, following injections, developed cough and râles in the lungs, were looked upon as having had latent phthisis, the physical signs being supposed to point undoubtedly to tuberculous patches on the lungs. These experiments would go to prove that these signs were the result simply of an infiltration or even of a pneumonia, but had no direct connection with the tuberculous process. In the same way that a pneumonia was produced in the lungs of healthy animals, so could it be produced in lungs already tuberculous. This probably accounts for the *post-mortem* appearance of wide-spread pneumonia in the lower lobes, the upper lobes having been the seat of the original tuberculous process, as described by Virchow and Hausemann. Grawitz's observations of the appearance of the tubercle bacilli were also very interesting. There has been an immense amount of discussion over the pearl-string appearances which the bacilli sometimes present, and which have been frequently ob-

served in sputum following the Koch injections. By many it was taken as an evidence of the power of the tuberculin to directly destroy the bacilli themselves. The bacilli frequently not only presented the appearance of a string of beads, but also detached beads and portions of strings, two or three clinging together, would be found here and there. It is another well-known fact that frequently in advanced cases of phthisis with rich pustular sputa no bacilli are to be found, in spite of most careful research. Grawitz found that in tuberculous abscesses, where the bacilli had been mixed in with pus, all the intra- and extra-cellular bacilli presented more or less the broken-up appearance, sometimes only points showing up colored to indicate the presence of bacilli at all. On the other hand, sections cut from the infiltrated tissues surrounding the abscesses showed the bacilli intact in their usual form. The question then was, whether these broken-up forms were still capable of reproduction. To this end gelatine, agar-agar, and potato were inoculated, but with negative results. The same material was then injected subcutaneously in two rabbits and intra-peritoneally in one guinea-pig. In six weeks the animals were killed. The guinea-pig showed a general tuberculosis, especially wide-spread in liver, spleen, and lungs. The rabbits showed a local tuberculosis consisting of caseous subcutaneous abscesses and small caseated lymph glands in the neighborhood. This experiment is taken as conclusively proving that these broken-up and apparently destroyed forms of the bacilli retain to the full their virulence.

The technique in the examination of sputum as carried out in the Moabit Hospital, and reported in the *Deutsche Medicinische Wochenschrift* of 1891, No. 13, by R. Immerwahr, may be interesting, in that some of the minor points may not be known to all your readers. First, the sputum is prepared for examination in those cases where difficulty has been found in detecting bacilli, according to Biedert's method of sedimentation. This, as proposed by Biedert, of Darmstadt, in 1886, is as follows: A tablespoonful of the sputum is taken and mixed with two tablespoonfuls of water, to which fifteen drops of caustic soda have been added.

This is then boiled until the whole mass becomes fluid. Four tablespoonfuls of water are then added, and the whole boiled until a homogeneous fluid results, in which only a few little particles swim. After cooling, if the fluid is not quite thin, three to six spoonfuls of water may be added. The fluid is next poured into a funnel-shaped glass and allowed to stand from two to three days (not longer). In the upper layers of this fluid very few tubercle bacilli are to be found, so the fluid is now poured off, only leaving a column in the bottom of the glass five to six millimeters high. This remaining fluid is then shaken and stirred up, and the smaller particles fished out for examination. Proceed then with cover-glass preparations as usual. Sometimes, owing to the dissolution of the albumen, difficulty is found in making the sediment stick to the cover glass through the various operations. In such cases a small amount of egg albumen can be employed on the cover glass. The coagulation of this under heat will assure the adherence of the sediment to the cover glass. Mühlhausen modifies Biedert's method and makes it somewhat more convenient. Take what amount of sputum you choose and add six to eight times the amount of a two-per-cent solution of caustic soda, shake up one hundred times, and then boil. Let stand two to three days, and then proceed as before. Dr. Bugge, in Danzig, has designed a simple little apparatus which will be found very convenient in employing the Biedert method of sedimentation. An ordinary test-tube is drawn out over a Bunsen burner to a fine point, leaving an opening of about one millimeter diameter. This opening is closed with the finger while the previously boiled and otherwise prepared sputum is poured in. The top is then covered with a gum cap. On removing the finger from the small opening a few drops only flow out and then cease, owing to the upper opening having been covered with the gum cap. The tube can now be screwed into a pipette holder, and the sedimentation allowed to proceed for two or three days. A light pressure on the gum cap will force out a drop at a time on the cover glass or slide held below.

This method has rendered the finding of the bacilli so certain that a case seldom occurs

where their presence can not be demonstrated. Its advantages are perfectly evident, and require no comment.

After having tried the various methods of staining the tubercle bacilli, that of Gabbet has been selected and is now employed exclusively in the Moabit. It has the advantage of being the most convenient, the quickest, and the most certain, as Immerwahr determined by a number of comparative experiments. The staining is first done with Ziehl's carbol-fuchsin solution, the formula for which is:

Fuchsin .....	1.0
Absolute alcohol.....	10.0
Carbolic acid .....	5.0
Water .....	100.0

The solution is warmed until vapor begins to rise, and is then given from three to five minutes. After washing out in water the cover glasses are brought direct into Gabbett's solution, which is the following:

Methyl-blue .....	1.0
Acid sulph. pur.....	25.0
Aqua destillata .....	100.0

They are allowed to remain in this solution from one half to one minute, are then washed out in water, dried, and are ready for examination, mounted in glycerine or balsam, if it is desired to keep them permanently. The staining can be done either in a watch-glass or direct on the cover or slide. This method has the advantage of decolorizing and counter-staining at the same time, so saving one step in the operation. As it is pronounced by Koch's assistants an "absolutely safe" method, it can be relied upon as being the best.

JAMES B. BULLITT, M.D.

HEIDELBERG, May 20, 1891.

**A NEW POISON IN CHEESE.**—Dr. V. C. Vaughn announces a new poison found in cheese. A number of samples of the suspected cheese, which it was alleged had caused nausea and vomiting, were examined at the hygienic laboratory of Michigan University. Its poisonous character was proved in experiments on animals by its causing death in a few hours, but the nature of the poison could not be determined further than that it was not tyrotoxic, and that it belonged in the list of so-called poisonous albumens.—*Med. and Surg. Reporter.*



## Abstracts and Selections.

**INCOMPLETE FORMS OF DISSEMINATED SCLEROSIS.**—M. Charcot, in a recent lecture on some of the difficulties of diagnosis in cases of disseminated sclerosis, brought forward two cases which are worth notice. The first was that of a woman who had had at one time or another all the chief symptoms characteristic of the disease, but who had gradually lost some of them. She had had most marked tremor on voluntary movement, attacks of vertigo, and most irregular gait; but all these symptoms had disappeared completely except the last, which had very much improved. Still there was quite enough left to show what was the nature of her disease. She had still the characteristic "scanned" speech, the lateral nystagmus, and the exaggerated patellar reflex. The loss of the other symptoms should serve as a reminder of the variability and temporary relief that sometimes occur in disseminated sclerosis, and should lead to a particularly careful study of the past history of such patients. In the other case, a woman aged forty-one, the mode of origin was in an attack of rheumatism with hyperpyrexia ( $106^{\circ}$  F.), and the symptoms which then developed themselves were remarkable, and carefully observed by M. Féréol. The attack was fifteen years ago, in 1876, when the patient was twenty-six, and was most acute. It was very justly called "cerebral rheumatism." After acute articular rheumatism for ten days there was loss of pain and complete collapse. The temperature rose to  $106^{\circ}$  F. The face was pale, the hands and feet cyanotic, the pulse almost imperceptible. A cold bath was given, and after it came some revival, with signs of bulbar and spinal excitement, resembling in some points tetanus, chorea, and epilepsy. Seven baths were given in eighteen hours. There was frequent opisthotonus, with the *risus sardonius* of tetanus, the loud shouting of delirium, and varied convulsions of all parts. But after about twenty-four hours the hyperpyrexia was subdued, slight articular pain returned, and there was decided improvement in strength, and a slow convalescence began. The nervous symptoms, however, did not pass off entirely. The opisthotonos and convulsions ceased, but there remained a slight choreic movement, which developed itself gradually into a jerky motion accompanying voluntary muscular action, and the speech, which was at first irregular and hesitating, became more definitely "scanned," and the gait halting and irregular, after the fashion of the gait of disseminated sclerosis. This was all developed and accurately described within six weeks of the acute

rheumatic crisis in July, 1876. Up to 1880 the tremor on voluntary movement was too violent to allow her to feed herself, but in 1880, under the care of Dr. Lasèque, there was some improvement, and since then further improvement, so that now she is able to move quietly almost without tremor, to walk without difficulty, and the intelligence and memory are good. There is still nystagmus, "scanned" speech, and some want of balance.—*Le Progrès Médical*.

**ANTIPIRYN IN EPILEPSY.**—Dr. McCall Anderson has recorded a case in the International Journal of the Medical Sciences under the heading "Case of Epilepsy Cured by Antipyrin." The patient was a boy aged nine years, who had been subject to fits for two years and a half. The first fit occurred six weeks after a fall. At first they occurred from four to six times daily, but later they had been much more frequent, occurring as often as from thirty to forty times a day. There was also paresis of the right arm, and, after this had recovered, of the left. Three months afterward the fits entirely ceased after the application of blisters to the head, and they remained absent for fifteen months. They began again, however, seven months before the patient's admission to the hospital, and he had as many as thirty or forty or even fifty a day. Just before admission, however, they had decreased in frequency, only occurring about twelve times in the day. On admission on December 20th he was put on five grains of antipyrin three times daily, and this dose was increased gradually until January 9th, when the dose had reached twenty-five grains. This was continued until January 16th, and then reduced to twenty grains, and again increased on the 28th to twenty-five grains. During the first six days the average number of fits *per diem* was 16.5; in the next four it was 13.2; on December 31st he had ten, and on January 1st the same number; on January 4th three fits, and then none till January 28th, twelve days after the antipyrin was reduced, when he had one slight fit. The dose was again increased, and no fits occurred when the last report was received on March 12th.

While we have to congratulate Dr. McCall Anderson on the excellent result in this case, which he ascribes entirely to the antipyrin, we would demur, in the first place, to his description of the result as one of cure, and we should also be inclined to ascribe at least some of the benefit received to the changed conditions in which the patient was placed. It is always difficult to say that an epileptic is cured, and this is especially difficult in the case for a patient who has had a period of freedom from fits of

fifteen months' duration on a previous occasion, and subsequent to therapeutic measures entirely different from those employed on this occasion. We should therefore hesitate to accept the case as one of cure until a much longer interval of time had elapsed.—*London Lancet*.

**EFFECTS OF STRYCHNINE ON THE STOMACH.** The effect of nitrate of strychnine on the functional activity of the stomach has been recently made the subject of a careful research by Dr. Gamper, of St. Petersburg, who employed for the purpose of his experiments four healthy young hospital assistants. He found that strychnine increased the amount of gastric juice secreted, the general acidity, and the quantity of free acid in the secretion. It also hastened the absorption from the stomach, and strengthened the mechanical movements. Its effect, too, continued for some time after its administration had been stopped. Like many other Russian observers Dr. Gamper seems to have been highly impressed by the value of strychnine in chronic alcoholism, declaring that it is the most effective of all drugs in such cases. The thesis contains a long list of references to the literature of stomach affections, published in six or seven languages in the last ten years.

**EHRlich's TEST IN TYPHOID FEVER**—This test, which has been known for a number of years, has till recently been regarded by many rather as a medical curiosity than as of diagnostic value. Dr. C. E. Simon, of the Johns Hopkins Hospital, has recently shown that by carefully following the precise directions for its use, valuable information may be derived. The test consists of two solutions. (1) A saturated solution of sulphanilic acid in five-per-cent hydrochloric acid, and (2) a five-per-cent solution of sodium nitrate. These are to be mixed, just before use, in the proportion of 40 cc. of (1) to 1 cc. of (2). If this mixture be added to urine from a case of typhoid fever, the further addition of ammonia will produce a play of colors varying from an eosine rose to a deep garnet red. The best method of applying the test is to take a few centimeters of urine in a test-tube, adding an equal quantity of the sulphanilic acid mixture and shaking thoroughly; 1 cc. of ammonia is then run carefully down the side of the tube. At the junction of the two liquids there will be observed a ring of the characteristic color, which is produced in scarcely any other disease than typhoid fever. Dr. Simon's conclusions may be thus summarized: (1) The reaction may be obtained in typhoid fever from the fifth to the twenty-second day of the disease. (2) Its absence from the fifth to the ninth day indicates a

very mild attack, save in children, though this rule is not an absolute one. (3) As it occurs previous to the appearance of the rash, it is a very useful aid in the diagnosis of typhoid fever.—*Therapeutic Gazette*.

**INTUBATION IN DIPHTHERIA.**—In a paper on intubation of the larynx for diphtheritic stenosis Dr. Pauli discusses the question from a large practical experience. While recognizing as advantages the easy and rapid execution of the operation, giving instantaneous relief to the breathing, the avoidance of a wound, and the danger of infection, the retention of the natural air-passages, and the readier consent of the parents to a non-cutting operation, he thinks that they are more than counterbalanced by the great difficulties of the after-treatment. These are displacement of the tube from coughing, etc., its blocking up, or its prolapse into the trachea. The process of nourishment is conducted with much trouble, the mucous membrane of the larynx is kept in a state of continuous irritation, and sores frequently arise from the impact of the tube. He declares further that pneumonia occurs oftener in those intubated than after tracheotomy. The conclusion he has come to is, in acute croupous or diphtheritic stenosis of the larynx to prefer tracheotomy, and only to use intubation where the assistance is insufficient or the parents decline the cutting operation, and also during a mild epidemic in cases where the throat affection is slight, so that during the feeding of the child the tube may be removed without risk.—*Therapeut. Monatshefte*.

**HEMORRHAGE IN PARACENTESIS TYMPANI.**—Hildebrandt records the following interesting case of injury to the bulb of the internal jugular vein, following paracentesis of the membrana tympani. A female patient, aged four, complained of sudden severe pain in the right ear. The membrana tympani was found injected and bulging in its posterior inferior segment. Immediately after paracentesis of the membrane had been performed, a large amount of dark colored blood flowed through the incision and from the meatus. It was necessary to plug the external meatus to check the hemorrhage. The membrane shortly afterward presented in its posterior segment a bluish-red prominence. This prominence is found to vary at times, and especially so when pressure was made upon the internal jugular vein. Professor Trautmann, in whose clinic the case occurred, believed that the prominence was the bulb of the internal jugular vein protruding through a fissure in the floor of the middle ear.—*The Med. Chronicle*.



# The American Practitioner and News

"NEC TENUI PENNÄ."

Vol. XII. SATURDAY, JULY 18, 1891. No. 2

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE KENTUCKY STATE MEDICAL SOCIETY.

In this issue appears the last installment of the somewhat voluminous scientific discussions which characterized the recent meeting of the State Society at Lexington. Through this and the preceding two issues we have placed before the readers of the American Practitioner and News, in full text or abstract, the greater number of the papers read at the thirty-sixth annual meeting and a well-made short-hand report of what the Fellows said about them. Several papers, kindly sent us by the authors, and several others kindly promised, to which we found in the report no tallying matter, we have reserved for next and coming issues. For the courteous readiness with which we have been supplied with manuscript we here tender the authors our best thanks. We regret that our reporter failed to furnish an abstract of the President's Address, since we have so far failed to secure the full text manuscript for publication.

The minutes of the meeting are too voluminous for our space, and moreover are not of sufficient general interest to warrant their full-text reproduction in the journal. We here append either in substance or in text the account

of such business measures as would seem to be of general interest.

The Committee on Credentials recommended ninety-two candidates for membership, all of whom were duly elected.

### TREASURER'S REPORT.

Dr. J. B. Kinnaird, Treasurer, presented his report, which showed the Society to be square with its creditors, but without a copper in the till. "Since the last meeting, notices have been sent to delinquents requesting an immediate settlement of their dues. Out of 113 delinquents, owing \$580, only 33 responded, paying into the treasury \$102. We would urge the members to settle back dues, for the Society does not wish to drop from the roster so many good names." He quoted from the By-laws, Article IV, for the benefit of many who labor under the impression that they are not required to pay dues unless in attendance.

### SECRETARY'S REPORT.

Dr. Steele Baily, permanent Secretary, made the following report:

It is with very great pleasure that I present the Secretary's report to the Thirty-sixth Annual Meeting of the Kentucky State Medical Society.

The Society is in fine scientific tith, as witnessed by the programme you have before you, full to overflowing with elegant papers, and whose proportions could have been made a third larger if we had permitted the introduction of foreign titles, beginning with New York and ending at the Gulf.

If there has been a loss by death from the membership I have failed to hear of it, and but one member has asked to be dropped from the roster, his excuse being age and other business cares.

The correspondence in this office has been quite extensive, and while I have discharged with fidelity every duty, my sins of omission as well as of commission may be greater than I am aware; but for every dereliction I am willing to make an honorable amende. The membership now numbers two hundred and ninety (290); thirty-six were added at our last meeting in the city of Henderson.

Accompanying this report is a tabulated statement of expenses incurred by the Secretary in the discharge of his yearly business, moneys which were advanced by him, the treasury being void of funds.

Paid for stamps, stamped envelopes,	
postal cards, etc.....	\$14 25
Expressage .....	2 15
Expressage of books, papers, etc., to	
and from Lexington.....	1 35
	———— \$17 75

On motion the report was received and adopted.

Under the head of Miscellaneous Business, Dr. L. S. McMurtry, of Louisville, said:

I move that a Committee on Publication be appointed at this meeting to restore the annual volume of Transactions, incorporating the reports and papers read and the discussions on the same, the latter to be revised by the authors preparatory to their publication. In order to meet the expense of the publication of the annual volume of Transactions it is necessary to raise the annual dues slightly. The matter of publishing the papers in the Transactions does not prevent authors from furnishing copies of their papers to reputable medical journals; but the original manuscript must be handed over to the permanent Secretary as soon as read or shortly thereafter.

This motion was seconded, carried, and referred to a committee who reported adversely. After a vigorous discussion the report of the committee was lost, and the volume of Transactions will accordingly be issued.

The Nominating Committee, through their chairman, Dr. Pinckney Thompson, reported the following nominations:

President—Dr. H. Brown, Hustonville.

First Vice-President—Dr. B. L. Coleman, Lexington.

Second Vice-President—Dr. John Young Brown, Henderson.

Permanent Secretary—Dr. Steele Bailey, Stanford.

Treasurer—Dr. J. B. Kinnaird, Lancaster.

Board of Censors—Dr. B. W. Stone, Hopkinsville; Dr. Charles Mann, Nicholasville, and S. W. Willis, Winchester.

Place of Meeting—Louisville; time to be fixed by the Committee of Arrangements.

Chairman of Committee of Arrangements—Dr. A. M. Cartledge, Louisville.

On motion the report of the committee was adopted.

The annual dues were fixed at \$3.

Dr. J. H. Letcher, of Henderson, offered the following resolution, which on motion was adopted:

*Resolved*, That Section 2, Article 10 of the Constitution be so changed as to read as follows: "Each officer shall be elected after recommendation by the Nominating Committee, which committee shall be made as follows: Immediately after the close of the first session of the Society, members present shall organize themselves into eleven conventions, according to the Congressional districts, all members present from the First Congressional District constituting one convention, and so on for the eleven districts, each convention to elect one member of the Nominating Committee, except the convention of the Fifth Congressional District (in which is situated the city of Louisville), which shall elect two members. The chairman of each convention to report their members at the next session, the President then to appoint the thirteenth, he to be Chairman of the Committee. The election shall take place at the annual meeting of the Society, after the reading of the proceedings of the

previous day, and each officer shall serve for one year, or until another is elected to succeed him."

Dr. J. B. Marvin, of Louisville:

With a view to encourage original work, I will offer to the Society a prize of fifty dollars for the best paper on the etiology or pathology of any disease that embodies original work on the part of the author, said paper to be presented at the next annual meeting.

On motion the offer was accepted and the proper arrangements made for it.

Dr. J. N. McCormack offered the following resolution, which was adopted:

#### MARVIN PRIZE ESSAY.

*Resolved*, That a Committee of three be appointed by the Chair, whose duty it shall be to prescribe and publish the time when and conditions upon which the contest under Dr. Marvin's generous proposition shall be made, and to award said prize, and have the successful essay read at the next annual meeting of the Society.

The President announced the Committee on the Marvin Prize Essay, as follows: Drs. J. A. Ouchterlony, Arch Dixon, and Samuel E. Woody.

Dr. John D. Neet, of Versailles, offered the following resolution:

*Whereas*, Inebriety with all its accompanying ills is prevalent throughout this Commonwealth, and should be controlled by State legislation, be it

*Resolved*, By the Kentucky State Medical Society, that our State legislative body be memorialized to enact such laws as will establish a State inebriate asylum, and that a committee of five be appointed by the President of this Society to go to Frankfort during the sitting of the next legislature, and use every possible effort that may be needed to secure the passage of such laws.

The resolution was, on motion, adopted.

Committee: John C. Lewis, Georgetown; W. O. Bullock, Lexington; J. W. Gilbert, Lawrenceburg; E. E. Hume, Frankfort, and J. D. Neet, Versailles.

Dr. H. M. Pusey, of Louisville, having read a paper on Providing for the Insane in Kentucky, offered the following resolution and moved its adoption:

As there is in Kentucky no commission of lunacy or organization of any sort whose duty it is to look specially after the interests of the insane or the institutions for their benefit, and as the public depends on the medical profession to suggest and originate all measures of reform and improvements in the treatment and care of the insane.

*Resolved*, That this Society appoint a committee, to consist of three of its members, whose duty it shall be to investigate the subject of providing and caring for the insane of the State, with especial reference to what is claimed to be the modern and more econom-



ical method, which, as variously modified, is known as the combined system, the detached or block building plan, and the village and colony plan; and that said committee shall report all information obtained on this subject, together with its own impressions, to the House Committee on Charitable Institutions at the next meeting of the State Legislature.

Carried.

This Committee consists of Drs. H. K. Pusey, Louisville; B. W. Stone, Hopkinsville, and T. B. Greenley, West Point.

The Secretary read the following list of appointments of Committees as made by the President for the ensuing year:

Practical Medicine—Wm. Bailey, Louisville.  
 Practical Surgery—A. M. Cartledge, Louisville.  
 Obstetrics—Arch Dixon, Henderson.  
 Improvements in Materia Medica—W. W. Richmond, Clinton.  
 Improvements in Pharmacy—F. O. Young, Lexington.  
 Gynecology—David Barrow, Lexington.  
 Diseases of the Rectum—J. A. Lewis, Georgetown.  
 State Medicine—J. N. McCormack, Bowling Green.  
 Vital Statistics—T. B. Greenley, West Point.  
 Appendicitis—Fayette Dunlap, Danville.  
 Genito-Urinary Surgery—E. R. Palmer, Louisville.  
 Abdominal and Pelvic Surgery—W. H. Wathen, Louisville.  
 Dermatology—I. N. Bloom, Louisville.  
 Otology—W. B. McClure, Lexington.  
 Laryngology—Thomas Hunt Stucky, Louisville.  
 Medical Ethics—Isaac Shirly, Winchester.  
 Surgery of Bones—R. C. McChord, Lebanon.  
 Ophthalmology—S. G. Dabney, Louisville.  
 Albuminuria—W. R. Evans, Danville.  
 Intestinal Anastomosis—James H. Letcher, Henderson.  
 Railroad Surgery—Geo. Perkins, Somerset.  
 Committee on Publication—L. S. McMurtry, J. B. Marvin, J. G. Cecil, and J. A. Larrabee.

## Notes and Queries.

**PROGENY OF LEPEERS.**—In an analysis of one hundred and eighteen cases of leprosy in the Tantaran Asylum, in the Punjab, reported by Gulam Mustafa and read before the Epidemiological Society of London, by Dr. Phineas S. Abraham, we find the following relative to the progeny of lepers: Seventy-three of the total number appear to have been married before the onset of the disease, viz., forty-three males and thirty females; and while still in the healthy condition, the males are credited with seventy-one children, now or lately living, and in most cases free from the disease, and the

females with sixty-five; total, one hundred and thirty-six. Only four females are stated to have given birth to offspring, five in all, after the disease had declared itself. Until recently it was the custom to allow the patients to intermarry. Thirty-nine of those whose histories are recorded, viz., sixteen males and twenty-three females, availed themselves of the privilege, and seven of them married more than once; thus, one man united himself with no less than five leper wives, one after the other, and several other patients were married two or three times. Altogether, the number of marriages contracted by the men in the list amounts to twenty-six, and those of the females to twenty-nine. Only five of the men proved prolific, with a result of ten children, and eight of the women, with a result of fifteen children. Four of the children are dead, so that we have left twenty-one as the progeny of fifty-five marriages. As the notes give no information as to the names of the leper or lepers which each man or woman married, it is impossible to say whether the children and the marriages are not counted twice in the above collection. It is probable that the actual sterility is even greater than these figures indicate.—*St. Louis Medical and Surgical Journal.*

**EDITORIAL RETIREMENT.**—As announced in the May number of the Medical Herald, my connection with the journal terminated with that issue. The many courtesies extended to me while discharging the duties of editor call now for an individual expression of my thanks to the subscribers for the kindly interest they have manifested in the journal, to the contributors for the brain work they have added to mine in the editorial management, and to my editorial friends of other journals for the many personal favors shown me. Although our journalistic acquaintance is thus discontinued, I trust that it will be followed, as opportunity offers, by further friendly association.

Sincerely, DANIEL MORTON.

ST. JOSEPH, Mo., May 15, 1891.

[We are sorry to lose this talented young man from the corps of medical editors. He has our congratulations, however, in being rid of a heavy burden.]

WYETH'S BEEF JUICE is one of the latest and one of the best nutritive preparations in the market. It has already become a favorite with physicians on account of its evident and special adaptedness for the class of cases in which such preparations are required. The high reputation of the house of John Wyeth & Bro. gave it at once an introduction to the confidence of the profession. Its convenience of administration is one of the arguments in its favor, as, unlike almost all other kindred preparations, it is given in iced or lukewarm water (never with boiling water), as the valuable albuminous elements are rendered insoluble by extreme heat. From our own personal experience with it, we can testify fully to its possession of all the merits which have been claimed for it.—*College and Clinical Record*, May, 1891.

**SALICYLATE OF MERCURY AS AN ANTISEPTIC.** At a recent meeting of the Surgical Society of Paris, Dr. Vacher, of Orléans, read a paper on the antiseptic qualities of salicylate of mercury, which is quoted in the *Bulletin Médical*. He considers the drug an admirable antiseptic and superior to Van Swieten's solution, because solutions of salicylate of mercury need not contain alcohol. Solutions of any strength are perfectly stable and will keep indefinitely. It is non-irritating and a powerful antiseptic. In the treatment of syphilis Dr. Vacher has found it to be of great service, particularly when given hypodermically. The injections produce no pain and cause no local inflammation. The author has used the drug in solution hypodermically in over one hundred cases of syphilis, and with the best results. Salicylate of mercury is always well tolerated.

### SPECIAL NOTICES.

**THE SHURLY-GIBBS FORMULA FOR PULMONARY CONSUMPTION.**—There are numerous formulæ which investigators, inspired by Koch's discoveries, have recently tested the virtue of in pulmonary consumption.

Among these it may now be judiciously claimed that the utility of several, which at first proved promising, has failed to be demonstrated by experiment.

The following should be regarded as still *sub judice*: Koch's Tuberculine, Liebreich's Cantharidinate of Potash, the transfusion of the arterial blood

of the goat into the veins of the tuberculous patient as suggested by Dr. Brenheim, the injection of the serum of dog's blood as suggested by M.M. Hericourt and Richet, the sub-cutaneous administration of gold and manganese commended by Prof. J. B. White, Dr. Roussel's treatment by the injection of aromatic vegetable essences or perfumes. These have been tried, and the verdict at present is that they have been found wanting in the anticipated specific therapeutic effect.

The most promising method is now considered to be the injection of chemically pure iodine and chloride of gold and sodium, in connection with the inhalation of chlorine gas, as commended by Dr. E. L. Shurly, Professor of Clinical Medicine and Laryngology, Detroit College of Medicine, and Dr. Heneage Gibbs, Professor of Pathology, University of Michigan.

It is vitally essential to the proper employment of these agents that the necessary solutions should be absolutely pure and of uniform quality.

Messrs. Parke, Davis & Co., announce that, at the request of Dr. Shurly, they have prepared solutions of chemically pure iodine and chloride of gold and sodium, which are put up in one ounce bottles, and will furnish physicians with clinical reports embracing the method of using these remedies.

**LACTO CEREAL FOOD.**—The enterprising and progressive firm of Reed & Carnrick are again in the field with a new and valued preparation called Lacto-Cereal Food, designed for invalids, dyspeptics, convalescents, the aged, and who suffer from impaired nutrition or retrograde tissue. This food, besides being entirely palatable, contains twenty-one per cent of albuminoids, the amount required to attain and sustain the highest bodily vigor, as has been lately demonstrated by Dr. A. H. Church in his scientific experiments on English troops.

Lacto-Cereal Food is the only Food containing desiccated fruit, which acts favorable on the *liver* and *bowels*, keeping them in a healthy, normal condition. It is neutral in its effects on the bowels, being neither laxative nor constipating.

The starch in the wheat and barley has been dextrinized so as to render it easily digestible. In general character and constituents this would seem to be an *ideal food*, and we predict for it the same popularity and pronounced success which have attended all preparations emanating from the house of Reed & Carnrick.—*Epitome*.

**IMPOTENCY.**—A reliable remedy:

R. Tinct. sanguinaria.....1 oz;  
Ext. stillingia fl.....1 oz;  
Celerina [Rio].....6 oz.  
M. Sig. Teaspoonful four times daily.

W. C. JONES, M. D., Yorktown, Ill., says: Have found that S. H. Kennedy's Extract of Pinus Canadensis is a remedy of superior excellence in gonorrhea. It seems to be a true specific. I first used it in a case which had withstood the action of our most popular remedies. Immediate relief and cure followed from the local use of S. H. Kennedy's Extract of White Pinus Canadensis.

"ROBINSON'S LIME JUICE AND PEPSIN" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

LOUISVILLE, KY., AUGUST 1, 1891.

No. 3.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### INSANE ASYLUMS AND THE INSANE.\*

BY H. K. PUSEY, M. D.

The asylum is now so generally accepted as the proper place for the treatment and custody of the insane that the general practitioner feels himself under but little obligation to study the subject of insanity or to investigate the plans and methods of providing for the demented. On this account the effort to procure more thorough instruction by the medical schools on diseases of the mind and nervous system is a movement in the right direction, as is, also, the effort to impress upon the general practitioner the duty he owes to such of his patients as are traversing the border-land of insanity, which too often covers the only curable period of the disease and lies between the first appearance of neurotic disturbance and the lunatic asylum. Then, too, it is expected of the physician that he will supply all knowledge of facts and things relating to the health of humanity, not only for the prevention and cure of its diseases, but also to provide for its defects whether of body or mind.

The question of State care and provision for the insane is now claiming more attention from the profession and the public than at any former period. The increasing numbers of our population and the policy adopted by Kentucky and most of the other States of caring for every class of their mentally defective have

rendered necessary important departures from old plans and old ideas, and imposed important responsibilities on those whose duty it becomes to provide for the wants of this most unfortunate class of our fellow-men.

The subject was discussed by the last State legislature and by several newspapers of Louisville. The issues raised by the discussion as to the policy of building a new asylum or of extending existing institutions by adding detached buildings on the modern plan opened the question of large and small institutions, and gave rise to disagreements which prevented any action on the part of the legislature looking to a provision for wants which were admitted to exist by both parties to the controversy.

Some of us, doubtless, with very imperfect information, have expressed opinions on the subject which have been accepted by those who heard us as the judgment of experts. Whether this has been the case or not, the public looks to the medical profession for guidance in these matters, and our duty to the State and to humanity imposes upon us the obligation to carefully study the subject and to prepare ourselves with intelligent opinions. For this reason I claim your attention to some of the questions involved in the provision for and care of our mentally unsound population.

Hospitals for the insane were first based exclusively upon the idea of treatment and cure of the mental malady, and were required to be strong and compact structures designed for comparatively small populations. This idea of compactness in architectural construction has been adhered to, while many of our institutions, from necessity, have been extended beyond the limits contemplated by the system. This has been done by crowding buildings together until five hundred to eight hundred inmates are herded together, virtually under

\*Read at the May Meeting of the Kentucky State Medical Society.

one roof, in conditions which have justly raised the question as to whether many of our asylums are curative institutions or promoters of chronic insanity.

That our entire asylum system is susceptible of improvement is made manifest by recent experience. This experience indicates the reforms of the future to lie in the direction of segregation of buildings for the insane and segregation of the inmates, not for "single or individual care," or "family care," or "boarding out" after the Gheel plan, but in classes, and in buildings accommodated in structure and location to the wants of each class of a large population maintained under one general management.

It is well that these reforms are in the direction of comfort and economy, for the first fact to be recognized is that the increasing numbers of this class place their wants beyond the ability of the State to meet them, except in the most frugal and economical way. The greatest good to the greatest number with the means available is the duty imposed, and how to effect this end the question to be decided. It is not a discussion as to the relative merits of the two systems without regard to cost, but a question of care or no care for a great mass of these people, with advantages claimed largely in favor of the less expensive plans.

No State has ever cared for its mentally defective in small institutions, and if it were never so desirable no State ever will do it. The expense precludes the possibility, and to attempt it is a waste of public money on a mistaken judgment and a misguided sentiment.

The advocates of small institutions have exhausted their arguments when they have said that one superintendent can not oversee and give his personal attention to so great a number of patients. But when the resident inmates are separated from the patients it will always be found that there are not so many of the latter, and that the medical duties of the superintendent are not so onerous as they may be made to appear.

Even though the number requiring medical treatment should be larger than I have indicated, they are mainly infirmary patients; and I think most of you will agree with me that

the largest general hospitals and infirmaries you have ever seen have been the best managed ones. The same is true from an administrative standpoint; the largest cities, the largest corporations and enterprises of every sort are the best managed, because they command the best executive ability and because in them system is a necessity; inspection is more thorough, and concealments by employees and collusions among them are more difficult.

Arguments against the indefinite extension of buildings for the insane apply with equal force to the indefinite extension of a city or of buildings for any other class of people. I do not underrate the importance of the office and duties of the superintendent; on the contrary, I regard asylums for the insane as peculiarly one-man institutions. The superintendent must be the head in a sense more absolute than in any other institution; yet I would not limit the institution on this account any sooner than I would divide a large city into two or more municipalities in order to lessen the duties or to render more effective the work of the mayor.

Too much stress can not be placed on the medical treatment of the insane. I am glad that the best talent of the profession can always be had as medical assistants in these institutions. We make a mistake, however, when we discuss the subject of caring for the demented exclusively from a medical standpoint—as if every inmate were a patient to be treated as a sick man or a violent lunatic, and as if the superintendent were the only competent medical authority connected with the institution. This assumption has hitherto controlled the architectural construction and appliances, which have been such as adapted the entire institution to the smallest and worst class of patients, on the theory that only such were to be provided for.

Dividing the population into *hospital* and *infirmary patients* and *asylum inmates* renders practicable such modification of structures and methods as will economically accommodate the resources of the entire institution to the wants of each class.

The hospital for the treatment and restraint of the acute and curable insane is a very much



more expensive structure than the asylum for the custody and the care of the chronic and mildly insane or the infirmary for those who are only physically ill.

The chief features of economy in building are found in the adaptation of pavilions and open wards to infirmary patients, and of dormitories and associate dining-rooms to the wants of a very large per cent of the inmates who readily fall into the habits of a well-ordered home, and in the advantage of numbers in the curtailment of current and administrative expenses.

Insane hospitals on the corridor plan for small populations can not be built and equipped for less than \$800 to \$1,000 per bed. Some of the States have expended as high as \$3,000 per bed, and other States have provided and are providing in connection with their hospitals comfortable asylum and infirmary accommodations for \$200 per bed. This latter sum brings institutional care within the reach of the commonwealth for every mentally defective citizen.

That State institutional care is the most humane and economical there is no longer any room to doubt. County and municipal care has everywhere proven a failure, and is being abandoned in the interest of both humanity and economy.

In discussing this question we are embarrassed by the great want of information on the part of the public and the profession too, as to the extent that these institutions are curative and to what extent they are only custodial; also by the fact that there are asylum men who still adhere to old ideas and, seeing only the hospital feature, insist on arguing the question purely from a medical standpoint, contending that no institution for the insane should contain more than three or four hundred patients, and that as this number is exceeded the chances for restoration are diminished, losing sight entirely of the fact that not one in ten of these resident in the asylum for more than one year has any chance to recover or ever does recover, and that the chances for recovery of the curable are diminished by their exposure to and the opportunity they have to observe the incurable, the epileptic, the paralytic, and terminal dement, as is unavoidable in small and unclassified institutions.

This contention relates exclusively to the excited, violent, and curable class, which never exceeds 200 or 300 in any one institution. That standpoint may therefore be admitted as correct without surrendering claim to advantages for the combined system of hospital and asylum construction which admits of indefinite extension of buildings and affords facilities of classification for treatment, custody, and employment that can only be furnished by having large numbers to select from.

The modern system of detached buildings fully meets the requirements of economy on which is based the plea for separate institutions for the different classes. But aside from considerations of economy, which is not served by it, it is fortunate that conditions connected with the insane make their classification by institutions so impracticable as to have led to the very general abandonment of the effort. Institutions for special classes imply a stability of mental condition which is never found to exist in any form of insanity. Patients can not be transferred from one institution to another as often as paroxysms of mental excitement or periods of calm may relegate them to the one class or the other. No odds how small or how exclusive an institution for the insane may be, or how much care is taken to avoid such a result, the changing phases of insanity will soon resolve its population into the various classes of patients. The acute will become chronic; the violent, harmless; the noisy and vociferous, calm and quiet, and *vice versa*. These conditions often succeed each other at such short intervals as to render it impossible to protect one class from the other within the limits of a small institution, or even in a large one on the compact plan. Many of the most hopelessly demented persons, though usually quiet and manageable, are subject to paroxysms of excitement and violence which render temporary hospital restraint and treatment necessary; and again there are many mildly insane persons who are curable, and many convalescing patients who are not quite ready to leave the institution, to all of whom the larger liberty and employment of asylum life is found to be of the greatest service.

But even if our knowledge were so unerring

and the conditions so unchangeable as to enable us to definitely divide the insane into "the curable and the incurable," to establish an institution for the latter class, with its appropriate title, would be a refinement of cruelty to the victim and his friends which could be intensified only by the inscription over its portals. "All hope abandon ye who enter here."

We must not forget that we are dealing with human beings whose sensibilities, though blunted by disease, in many instances are capable of feeling the degradation of a life doomed to such an institution. Let "hope spring eternal in the human breast," we should not crush it with a name.

For the reasons given, the asylum structures and asylum population should be convenient to the hospital and to the infirmary. The hospital should be central and in the foreground of buildings, separate and apart from all others, except the administrative building, and it should be adapted exclusively to the medical treatment and restraint of acute and violent cases. The infirmary should be located with a view to its sanitary surroundings and convenience to the entire establishment. These two buildings, sufficiently large to accommodate 300 and 200 respectively, are ample to meet the requirements of a population of 2,000 of such afflicted and defective persons as the State is now caring for in her institutions and otherwise. In this way the most radical treatment of the insane and the sick is provided for, and institutional care is obtained for the milder and harmless cases without imposing on the commonwealth this extra expense for a class of inmates who need only such attention and care as will supply their natural wants, but the instability of whose mental condition and consequent infirmity of physical health render it necessary to have them near the hospital and infirmary to which they may be transferred for care and treatment during paroxysms of mental excitement or attacks of physical illness.

The State of Kentucky in her three asylums is now caring for about two thousand patients. Not more than three hundred of these are ever at one time under medical treatment or subject to any kind of restraint. Every patient in each of these institutions may receive every

needed medical attention, and yet there will not be an average of one hundred in each asylum under treatment during the year; and the number under treatment for any condition on which the mental aberration may be supposed to depend will be even smaller than this.

With the buildings sufficiently isolated and so located as to protect from fire, atmospheric pollution, and from the unpleasant sights and sounds inseparable from the care of the demented, and with the advantages that numbers afford in the classification of patients and grouping of buildings, no limit need be placed on the capacity of the institution, any more than to a community or a village of settlers. The central hospital can be maintained as successfully, when surrounded by buildings at a proper distance for a distinctively asylum population, as when surrounded by buildings for any other class of people. And patients of the hospital and infirmary will be as distinct from the population of the institution as the patients of a general hospital are from the communities out of which they have been gathered.

The combined system does not imply, as has been asserted, the crowding of buildings or the herding together of great masses of the insane; but it affords facilities for the isolation of the noisy and discordant elements, for the concealment of the filthy and repulsive from the quieter members of the household, and brings within easy range all who need medical attention and hospital restraint. The medical corps, with the superintendent as the health officer, without assuming any great burden, can exercise such general supervision over the health and sanitation of the whole as is essential to the comfort and well-being of all communities. The circumstances alluded to render it impossible in small institutions to prevent promiscuous crowding of unclassified patients.

The principles here involved find expression in the partiality now so prevalent for general hospitals on the pavilion- or detached-building plan. There is little doubt that this partiality will increase as the germ theory of disease is more fully understood and as the demands for absolute asepsis become more imperative.

Dr Fisher, of the Boston Hospital for the



Insane, in a recent report, says: "Instead of having our noisy and excited patients to themselves, they have invaded our convalescent wards. During the summer the noise was so great in our middle wards that the attendants became sick for the want of sleep and had to take turns in sleeping in remote parts of the hospital so as to be fit for their daily duties." The doctor very naturally adds: "The effect of so much noise and confusion must have been detrimental to some of the patients who could not escape from it even for a night." And he says further: "This thing has continued longer than was necessary on account of the failure to finish buildings that would enable them to remove at once seventy five cases to their farm where two hundred patients are being provided for."

No superintendent of a Kentucky institution has been exempt from experiences complained of by Dr. Fisher. The reports of our Kentucky asylums have uniformly teemed with complaints of overcrowding, both of patients and of buildings. Five hundred, six hundred, and seven hundred inmates crowded into space intended for only three hundred, four hundred, or five hundred, has been a general complaint. Would it not be wise to provide a farm-home for the surplus two hundred in each of our asylums? And if for two hundred, why not for two thousand? Land is cheap in Kentucky, and can be had in areas sufficiently large to furnish building sites out of hearing and out of sight of each other, where each class can be provided for without the discord incident to crowded wards of unclassified patients.

It is small institutions which suffer most from crowding. Dr. Everts, of the Cincinnati Sanitarium, speaking purely from a medical and hospital standpoint and without regard to classification of patients, in his last report, says: "After all that has been said on the subject of 'large' and 'small' institutions for the insane, it is more than probable that the relation of numbers of patients accommodated to room provided, is a consideration of greater importance in a professional sense than any definite limitation of the number that may be prudently provided for in one institution. In other words, it is probable that a hospital equipped for the

accommodation of one thousand patients, but practically accommodating but nine hundred, would be a more desirable provision than would be that of four hospitals equipped for two hundred only each, but practically accommodating two hundred and fifty each, whether from choice or necessity."

The principle here laid down by Dr. Everts for hospitals is eminently applicable to asylum populations, and may be extended indefinitely or to the extent of accommodating the wants of the insane to the resources of the State, and this without duplicating the administrative expenditures for every two hundred or three hundred inmates.

The combined system affords better facilities for the employment of the inmates, for utilizing their labor as cooks, housekeepers, ward-workers, and nurses. Employment, as a curative and sanitary measure for the insane, is constantly growing in favor. Each year is developing larger possibilities in this direction, both to the patient and the institution. Observing men are becoming more and more imbued with a knowledge of what can be accomplished by a proper direction of the physical energies of an asylum population. In view of this fact, the question of providing employment for them and a proper direction of their labor becomes one of interest to the State and importance to the institution.

Some asylums are adopting mechanical pursuits for such of their inmates as are adapted to them and as will likely be benefited by employment.

Agricultural pursuits are best adapted to the condition of the insane and to the former habits of a good majority of our population, and can be provided as cheaply as any other employment. These facts have led to the practice that now prevails in most of the States of locating asylums for the insane where large tracts of land can be had in connection with them. This policy is appreciated not only for its remedial and moral benefits, but for the possibility it discloses of making a large percentage of the population self-sustaining and contributive to the support of the institution.

In New York, where this system has been in operation for fifteen years, the people have dis-

covered that State care, by this system, is more economical, humane, and satisfactory than the care in the poor-houses and the county asylums; and the legislature has recently placed the seal of State approval on the system by passing an act looking to its adoption in all of the State asylums. This is said to be done in order to care for such imbeciles as are now confined in the alms-houses and county asylums. The act does not provide for the establishment of new institutions, but requires "the State to be laid out into as many districts as there are State asylums, and that detached buildings, which admit of indefinite extension, shall be erected in connection with each asylum as the requirements of this class may demand."

Illinois has taken more pains than any other State to obtain the consensus of sentiment on this subject. In 1869 the State Board of Charities of Illinois asked a conference of the State officers, together with the superintendents and trustees of the three insane asylums of the State, to determine the merits and demerits of the two systems. With a view to this the commission applied to every superintendent in the United States and Canada for an expression of opinion on the subject. At a subsequent meeting, called to consider these replies, Dr. McFarland, one of the oldest superintendents in America, being the principal speaker, said: "The present system of architectural construction adapts the entire institution to the demands of the smallest and worst class of patients, while for the great majority all of these appliances are utterly unnecessary. Besides irritating the patient, confinement abridges his sources of recreation. Under the existing system of confinement he has not sufficient useful employment. The insane asylum constructed on the monastery plan is a costly institution. We need more of the element of home-life in the treatment of the insane. I would not abolish the old form (meaning the Kirkbride plan) of the institution. I hail the fact that the two systems may exist side by side. I would have the central hospital in the foreground. At a little distance I would have a group, not of cottages, they should be houses two stories in height, each to accommodate its forty inmates. Under this system the facili-

ties of extension would be very great; classification could be made complete. We would rather protect than weaken the close supervision which a good humanitarian purpose dictates." He then added, "I believe the influence of this discussion, whatever may be the immediate result, will sooner or later be felt by the entire nation."

The following resolutions were unanimously adopted:

*Resolved*, That in the judgment of this conference a combination of insane asylums, so far as practicable, of the cottage system with that at present in vogue is desirable.

*Resolved*, That there are weighty reasons for believing that such combination is practicable, and that it would increase both the economy and efficiency of the asylums for the insane.

The influence of that discussion and of those resolutions has been felt by the entire nation, and Dr. McFarland, whose speech was then only prophetic, has been permitted to live and realize his prophecy in the construction of the great Kankakee asylum and in the adoption of the system or some of its features in most of the States.

The State Board of Public Charities of Illinois, in 1878, sent its secretary, Mr. F. H. Wines, to Europe in the interest of the public charities, and while there he made such observations, in both Great Britain and on the continent, on the methods of caring for the insane as enabled him to present the plans for the Kankakee asylum.

After a thorough trial of the system, Mr. Wines closes a more recent argument in its favor with the following language: "The system is further justified by the balance of advantages which seem to be in its favor. Its advantages, and not its comparative cheapness, are its chief recommendation. It was not born, as has been charged, of the spirit of parsimony. It is not the foolish, ignorant conception of men who know nothing of insanity or the requirements of the insane. It originated in a broad view of the situation and needs, not merely of the insane who are in hospitals and properly cared for, but of those who can not be admitted and retained in hospitals, and are therefore neglected and forlorn, who appeal most strongly to the sympathy of the humane. The rapidity with which it is spreading proves



its adaptation to meet a public want and its power to elicit popular appreciation and approval."

Dr. Dewey, in his last year's report for Kankakee Asylum, says: "I think it may be fairly claimed that this institution and the new order of construction, after passing through the experimental stage, have met with public approval."

Dr. Dewey also reminds his board of trustees that their asylum accommodates one thousand men and only six hundred women, and that the demands of the district allotted to the asylum is about the same for each sex. He then says, "For the above reason, and to provide further for the insane who are so inadequately accommodated, you have instructed me to offer to build for three hundred (300) more females, if it shall prove to be the fact that the legislature wishes it to be done, since our experience has now shown that women can be equally well domiciled in cottages as men."

The plans of Kankakee Asylum are laid for two thousand patients, when completed, by making the departments for the sexes equal. It now contains sixteen hundred and seventy-five (1,675), and I must be allowed to say that in no institution have I observed more substantial evidences of care and comfort than I saw in that institution, and I certainly heard less noise and observed less confusion and friction than I have heard and seen in institutions of one fourth of its population.

Of the Toledo Asylum, planned for fifteen hundred patients, the trustees say: "It affords us great pleasure to again congratulate the friends of the cottage and non-restraint system upon the success thus far achieved. We feel now that we have passed the line of experiment and have demonstrated that the cost of building under our plan is only about one third of the older asylums; that the cost of maintenance is less, and that the comforts of its inmates and their well-being in all respects are greatly enhanced."

From the superintendent's report of the same institution for the same year, 1889, I extract the following: "I feel, therefore, that the experimental stage is past, and the many advantages of the cottage or segregate plan are abundantly demonstrated, as I believe will be shown by the results attained."

Among the results, he mentions the greater freedom for the patients, less feeling of restraint and consequently less disposition to escape. There are ground-floor sitting-rooms and outside dining-rooms, to which they go three times a day for their meals, thus affording exercise, enforcing discipline, and giving better opportunities to utilize their labor with saving to the State and benefit to themselves.

The Willard Asylum, of New York, an institution heretofore designed for the so-called incurables and accommodating two thousand patients, under the new act of the legislature now has its allotted district of all classes, and the superintendent says: "With properly equipped hospital wards for the treatment of acute cases there would be no reason why Willard should not maintain among State hospitals the enviable reputation she has held among asylums for the last twenty years."

To accomplish this he suggests that it will only be necessary to build two hospitals, one for either sex, each to contain fifty patients, or to make such changes in the wards of the main building as will make them suitable for the treatment of that number of acute cases.

The Norristown Asylum, in Pennsylvania, a comparatively new institution, at the close of last year contained 1,831 patients. The board of trustees in their report repeated in the following language recommendations previously made: "After mature reflection the trustees are of the opinion that the best, the cheapest, and the speediest way to provide for these unfortunate wards of society for many years to come, is to lay out on the present grounds of the hospital another system of dormitory buildings, with center building, kitchen, and boiler-house, similar in general plan to those now here, to hold one thousand patients." Continuing, the trustees say: "The reasons in favor of this plan on the score of economy, expediency, and efficiency, appear to the trustees to be unanswerable and conclusive. The ground, the organization, and the experience are here already. A year or more would probably be spent in the selection of another site, and the

cost of ground and building anywhere else would be twice as much or more than twice as much as the cost of the same accommodations on the present grounds. Here, the present organization and staff, with but little additional subordinate labor outside of attendants, would readily take charge of the new system. Elsewhere a complete organization from the highest to the lowest would add very largely to the relative running expenses." And the trustees might have added that elsewhere the State would be deprived of patient-labor in the construction of buildings, more than one half of which labor, skilled and unskilled, can be supplied by the asylum inmates and their attendants.

In 1886 I corresponded with a number of superintendents on the subject of the location and construction of buildings for the insane, having reference to certain buildings and extensions then under contemplation at Central Asylum. Every superintendent addressed on the subject replied, and without a single exception commended the plan of extending by detached buildings or blocks of buildings adapted to the accommodation of from forty to three hundred inmates.

Dr. Gerhard, of the Pennsylvania State Lunatic Asylum at Harrisburg, wrote me: "This season we began to rebuild and enlarge on the block plan. Each of our new buildings will accommodate from one hundred to one hundred and fifty patients. In the location of buildings each institution must be governed by the character of the site and the special wants of the patients to be cared for."

Dr. Dewey, of Kankakee, said: "I can say in general terms that I regard separate buildings erected as much as possible like two-story dwellings, though necessarily much larger, as preferable to buildings on the corridor plan three stories high, and our experience here with eighteen such buildings containing twelve hundred patients is that they work practically as well and in some respects better than the three-story linear buildings which we have in use for over three hundred patients."

Dr. Kilbourn, of the Northern Illinois Insane Asylum at Elgin, wrote me: "There are many advantages in having detached blocks of

buildings capable of holding not less than from two to three hundred or more patients for the accommodation of the different classes of the insane; and if we build another year, as we confidently anticipate doing, we shall put up detached structures of brick capable of sheltering from three to four hundred insane of both sexes, and situated from the main or present buildings some three or four hundred yards."

Dr. John B. Chapin, superintendent of the Pennsylvania Hospital for the Insane, the Kirkbride Asylum of Philadelphia, said: "I have no doubt you are doing wisely to consider the practicability of enlarging the accommodations of your asylum by the erection of detached blocks for the care of the harmless or chronic cases. In detached blocks the appliances relative to hospitals may be much reduced, and there may be great economy in cost of construction and subsequent administration." He further said: "At Willard, as you may be aware, the system of detached buildings has been in operation for fifteen years, and while there in charge I never had any reason to regret the departure from the old plans. The longest distance between the center building and any one of the blocks was one mile. As a telephone can be connected with any part of the establishment it is immaterial where the buildings are located. Circumstances should control the location. You have the plan, as I understand it, of a large asylum—ample site, water, and other requirements for a large institution. What can your State do that is better than to enlarge by making provision on your present grounds for your chronic and harmless patients? If you will pursue this policy you will provide for your chronic and harmless cases at the lowest cost. The accommodation thus provided will be appreciated more than your hospital would, as enlarged liberty, more systematic employment, and a lower general average cost of support will result. At Willard and Binghamptom, N. Y., Middletown, Conn., Illinois asylums at Kankakee and Jacksonville, the current expenses have steadily declined with the erection and occupation of detached buildings."

Dr. W. W. Godding, of the Government



Asylum at Washington, said: "Looking forward as you do to a population of twelve hundred patients, favored as you are with a contour of grounds, two ridges with central depression affording water supply and heat (if you choose to place your boilers there) which could be distributed with equal facility to the north and south ridge, you would make a mistake, as I view it, if you did not take advantage of the situation to expand rather than contract your base of operations. It does not seem to me that eight hundred feet is so great a distance as to impair an effective oversight on your part of the whole, while by judicious arrangement of individual structures, planting trees and hedges, and the interposition of such work shops and other buildings as you will naturally introduce, it will be found that you have isolated the noise, hidden the repulsive objects, left the convalescents in a measure to their own devices, and given the farm-laborers a farm and a home in which I should hope the servants and the patients might, without disturbing others, bring out the banjo and the fiddle in summer evenings as if they belonged there. Spread out your buildings, adapt them to the class whose home it is destined to be, and you will not hereafter regret it."

Dr. John S. Butler, of Connecticut, who for fifty years has been engaged in providing and caring for the insane, says: "The plan of building in detached blocks commends itself for economy both in construction and in current expense, and with the telegraph, telephone, and tramway out of sight and out of hearing, at a distance of more or less than a mile, these structures can be brought within easy range of the sharp supervision of the chief superintendent."

In addition to the presentation of a few facts and arguments, the result of my own experience and observation, it has been my object in this paper to present the views and practice of medical superintendents who have had the largest and longest experience in providing and caring for the insane, hoping thereby to aid the profession in forming a judgment which will do something toward securing for our own State the benefits of a system which commends itself alike to the humanitarian and the economist.

LOUISVILLE.

## JEQUIRITY IN THE TREATMENT OF GRANULAR LIDS.\*

BY J. G. CARPENTER, M. D.

Jequirity, though severely condemned by such men as Knapp a few years ago, still occupies a conservative place among ophthalmologists. It was used by them in its liquid state. To Dr. Wm. Cheatham, of Louisville, Ky., is due the honor of using jequirity in the form of an impalpable powder, and by Cheatham, more than any other, it has justly maintained its prestige as the remedy *par excellence* in the treatment of trachoma. In selected cases and in families where there were two or more members afflicted with granular lids he has intrusted the application to the mother or nurse at stated intervals, with restoration of sight and health in from three to six weeks.

Those prominent ophthalmologists, Drs. J. Morrison Ray and Frank D. Green, of Louisville, have informed the writer that in granular lids accompanied with pannus they have observed their cases to end speedily in recovery.

Though I have used jequirity in the powdered state, following Dr. Cheatham's advice, in not more than a half dozen inveterate cases success has crowned my efforts. The most of these cases had been of several years' standing, and, like most cases of granular lids, I had tried divers treatments, with only temporary improvement, until jequirity was used at stated intervals, when complete recovery was obtained in from three to six weeks.

The misuse or abuse of jequirity, and not its proper use, should be condemned.

In one of the cases, though it was one of three years' duration, no pannus was present. Patient had been under treatment about six months, with no great improvement. Jequirity was tried, and while the case ended in recovery, yet in twenty-four to ninety-six hours after an application of the powder was made an intense purulent ophthalmia was produced, followed by great tumefaction of the lids, orbital regions, face, and conjunctivæ. There was great chemosis of each eye, and orbital pain. Free scarification of the eyes, hot fomentations, and atropine, with asepsis, soon had

\*Read at May meeting of the Kentucky State Medical Society, Lexington, May 28, 1891.

a salutary influence, and relieved the patient of the acute symptoms. In two weeks there was a great improvement of the trachoma, and a few weeks' alternation with mild astringents and the yellow oxide of mercury ointment finished the case.

N. J. G., a girl twelve years of age, having granular lids for years, highly strumous and scorbutic, anterior and posterior cervical glands, parotids, submaxillaries, and tonsils very considerably enlarged, was referred to me for treatment. The trachomata of each eye were prominent, copious, and unique. There were marked pannuses, interstitial keratitis; the corneæ were quite milky, and blindness complete. The most marked blepharospasm existed. The eyes were cocaineized, the lids everted, cleansed, and kept aseptic. Judging from the pathological conditions present, this seemed a typical one for the therapeutic use of jequirity. The latter was used about every two weeks for six weeks. During the intervals mild astringents, alternated with yellow oxide of mercury salve, were used. Recovery of eyes was complete in two months, though it took four months more to correct the constitutional dyscrasia. In one week from the beginning of treatment the patient could see light, in two weeks could see the window bars, in three could count the fingers, and in four could read.

Nettleship states that jequirity acts very much in the same way as pus from purulent ophthalmia, but less severely. A very acute attack of diphtheritic or purulent ophthalmia, with much swelling, comes on a few hours after the infusion has been used, lasts a few days, and is followed by more or less shrinking of the trachoma bodies and of the vessels. It occasionally causes glandular swellings in the neck and considerable general disturbance.

Some thought jequirity possessed a specific bacillus, but it is disproved by Windmark, Klein, and others. Warden, Waddell, Salamsen, and others have separated an albuminous extract possessing the peculiar properties of the infusion of the seed. Nettleship states that the simple powder dusted into the conjunctiva is said to be too active, but two or three trials he made with it were negative.

Jequirity having given remarkable results

for good in some hands, proves it to be a valuable remedy in trachoma. Disastrous sequels having also occurred, indicate it was used too strong or in improperly selected cases.

Nettleship again states it is of little or no use if the conjunctivæ are succulent and producing pus, and it is not safe unless there are vessels on the cornea. It should be reserved for old, dry, granular lids with more or less pannus, and in such I have repeatedly had excellent results from it. I have used the powdered jequirity exclusively, and have used it where there was no pannus, but dusted the lids very mildly, using just enough to be perceptible to the eye; but where there was marked pannus I have made free use of the powder.

Conclusions are that jequirity's active principle is a nitrogenous ferment. The powder is safer and more reliable than the infusion. It should never be used when the conjunctiva is succulent and purulent, but when there are old, dry, granular lids, and when pannus is present. In cases of long standing, though no pannus is present, the sparing use of the powder in skillful hands might be used as a *dernier ressort*.

STANFORD, KY

## GUNSHOT WOUND OF THE LIVER,\*

In which Bile was Discharged Outside the Body; Recovery.

BY W. V. COOKE, M. D.

On January 5th, at 5:30 p. m., I was called to see W. M., aged thirty-seven, weight two hundred and ten pounds, who was suffering from four pistol-shot wounds, from a 38-caliber pistol. One shot entered beneath the left eyeball, lodging near the left condyle of the lower jaw; one entered the neck; one the right forearm, and one the right hypochondriac region, fracturing the eighth rib, passing through the right lobe of the liver, and lodging just beneath the skin of the back, where it could be easily felt. It is of this latter wound that I wish to speak, for all the other wounds healed quickly except this one and the one in the face. When I first saw patient he was bleeding profusely from the wound in the side, which was

\*Read at the May meeting of the Kentucky State Medical Society.



so superficial that, on consultation with Drs. Dixon, Brown, and Jones, we were uncertain whether it entered the liver at all or not; we were inclined to think that the ball had glanced around the eighth rib, beneath the muscles. A hypodermic injection was given, and antiseptic dressings were applied to the wounds. No probe was used; salts were administered; patient rested well until 12 P. M., when his abdomen became distended and he developed all the symptoms of a general peritonitis. He continued to vomit almost constantly for fifty-six hours. At the end of this time he grew gradually better for a week, temperature 99.5°, pulse 90, respiration 28; no tenderness over the region of the liver except at the point of entrance of the ball, which was healed so well that I took the dressing off. I now thought all trouble was over in the liver. The increase in temperature and pulse I attributed to the face wound, which was suppurating freely.

On January 25th the patient complained of a fullness beneath the lower border of the ribs, extending downward from the liver. On examination I found a hard tumor, which felt like a fetal head. On January 26th I introduced an aspirating needle, which drew off from what proved to be the gall-bladder, ten ounces of a black coffee-ground-looking material. On the 27th of January, assisted by Dr. Johnson, I made an incision midway between wound of entrance and exit into the liver. This incision let out about one ounce of pus, most of which we thought came from the muscles of the side. On February 8th the gall-bladder became again distended, and at the same time pure bile began to discharge from the wound of entrance. On February 10th I made an incision into the gall-bladder according to the directions given for performing cholecystotomy. This incision let out about nine or ten ounces of the same black-looking material which I had drawn off with an aspirator before. A drainage-tube was introduced into the gall-bladder, but this opening ceased to discharge and healed rapidly. The wound of entrance continued to discharge from three pints to two quarts of pure bile every twenty-four hours until March 27th. During this time patient's bowels were constipated, and could

only be moved by enema or large doses of salts. Tests for bile in the feces failed to show any. He had no appetite; was intensely jaundiced; circulation intermittent and about 90 per minute; respiration 26; he slept most of the time. When the discharge of bile from the side ceased for five or six hours, he would complain of a great fullness over region of the liver, but as soon as it began to flow again he would be relieved. He diminished in weight very rapidly from two hundred and ten to about one hundred pounds.

February 22d, bile ceased to flow from the wound of entrance; abdomen became again distended, and he suffered great pain from a feeling of fullness; temperature 103.5°; circulation 160; respiration 36.

February 26th, I made an incision from wound of entrance parallel with lower border of eighth rib, five inches long, into the liver. This let out one half ounce of pus and a great quantity of bile; it showed, too, that the eighth rib had been fractured by the ball. After this he began to improve rapidly. On March 25th he felt a peculiar fullness and some pain about the entrance of the ductus communis into the duodenum, and one could hear now and then a rumbling, gurgling sound, while the flow of bile from incision in the side greatly diminished until March 27th, when it discontinued to flow altogether. Appetite returned; bowels became regular; bile could be distinctly seen in the feces, and he continued to gain strength and weight until he was discharged, April 17th.

The points which I think of interest in this case are:

1. Here the ductus communis was obstructed, and all the bile except that which circulated in the blood was discharged outside the body. It was considerably in excess of the quantity I had been taught was discharged by the human subject in twenty-four hours.

2. It shows too the obscurity of liver wounds, and that, however slight, they may become cases of considerable gravity.

3. Good drainage by free incision is certainly the best treatment when there is any formation of pus within the liver. Drainage-tubes were not borne well in this case, nor do I believe

they can be used with any satisfaction in gunshot wounds of the liver.

Note: This man had been drunk for four months previous to the shooting.

CORYDON, KY.

## REMARKS ON THE HISTOLOGY OF THE BLOOD CORPUSCLES.\*

BY SIMON FLENNER, M. D.

I wish to bring before you briefly tonight the results of a method of examining the blood proposed by Ehrlich† in 1879-80, and followed by him and his pupils since then. By this method the corpuscular elements are preserved in a remarkable manner, and much light has been thrown on the normal and pathological histology of them.

In passing, I wish to recall that the blood of human beings contains between 5,000,000 and 6,000,000 red corpuscles and about 8,000 white corpuscles to the cubic millimeter. In health the number of red corpuscles is fairly constant, while the white elements vibrate somewhat, increasing in number after a meal and gradually diminishing before the succeeding meal. But this oscillation takes place within quite definite limits, and the proportion of white to red corpuscles probably does not exceed 1 to 100 at any time in health, while the average proportion is 1 to 600. An unusual increase in the white elements of the blood has long been considered to be of pathological significance, and the extent of such an increase has been held to characterize certain conditions.

Again, the number of red corpuscles, which is quite fixed in health, is subject to great reduction in some diseases, and the quantity of hemoglobin contained within them may vary independently of the fluctuations of the corpuscles.

The number of the red and white corpuscles are estimated by means of the Thoma-Zeiss apparatus, and the hemoglobin is determined by the hemometer of Von Fleischl. Both of these instruments are familiar to you, and I shall dwell on them no longer than to state that it is

necessary to count a whole drop for the red corpuscles and three entire drops for the white corpuscles. In diluting the blood for this purpose I can recommend the solution of Toison, which contains a minute quantity of methyl-violet, the object of which is to tinge the white elements.

But it is more particularly of the dry examination of the blood that I would speak. Ehrlich found that by preparing blood after the manner of Koch for bacteria the cellular elements were well preserved and stained satisfactorily. The method consists in heating cover-slips coated with a thin film of blood upon a brass or copper plate at a temperature of 100° to 120° C. for several hours. They are then stained with aniline dyes, acid, neutral and basic colors being employed for this purpose.

Ehrlich has demonstrated that particular white cells contain specific granulations. These granulations differ somewhat in size, and especially in their affinities for coloring agents. One kind takes up acid stains only, another shows an affinity for neutral dyes, and still another for basic colors. Finally, some white cells are devoid of granulations.

In normal blood several varieties of white cells are distinguished:

(a) Lymphocytes. These are small cells about the size of red blood corpuscles, with a large, deeply staining nucleus and relatively small cell-body free of granulations. They are derived from the lymphatic system.

(b) Large lymphocytes, mono-nuclear leucocytes. Large cells, two or three times as large as a red corpuscle, with large oval or elliptical nuclei and considerable cell-body also free of granulations.

(c) Transition mono-nuclear. Cells resembling the preceding, except that their nuclei are somewhat irregular and present an impression or indentation. These are believed to pass into the next variety.

(d) Polynuclear leucocytes. Cells of the size of last or slightly larger. Nuclei stain intensely and are of characteristic irregularity. Nuclei probably polymorphous and not polynuclear. These are the leucocytes *pari excelle*nce. They contain specific neutrophilic granulations.

\*Read before the Louisville Clinical Society, May 12, 1891.  
†P. Ehrlich, Verhandlungen der physiologisch. Gesellschaft zu Berlin, 1879-80, No. 20; Zeitschrift für klin. Med., I, 553, 1880; Charité-Annalen, XIII, 288, 1887.



(e) Eosinophiles. Cells of size of last with single ovoid or polymorphous nuclei. Contain large, roundish specific (acid) eosinophilic granulations.

The percentage of these elements is quite constant in health. Lymphocytes, 20 to 30 per cent; large lymphocytes and transition forms, 6 per cent; polynuclear neutrophiles, 60 to 75 per cent; eosinophiles, 2 to 4 per cent.

In certain pathological states other white elements appear in the blood:

(a) Myelocytes. Large mono-nuclear lymphocytes or leucocytes (or larger than these usually are) filled with neutrophilic granulations.

(b) Basophiles. These are large cells containing specific basic granulations. They are supposed to be identical with the "mastzellen" found in the tissues. At the present time they are not understood.

The red corpuscles found in the blood under abnormal conditions are nucleated red cells (normoblasts), larger nucleated red cells, the giantoblasts or megaloblasts, and degenerated red cells which take up basic stains.

From a large number of observations it is possible to construct typical pictures of some abnormal conditions of the blood. This is especially true of the blood in leukemia and leucocytosis. Pernicious anemia has also been studied in this way.

Formerly it was the custom to call all leucocytoses leukemia in which the proportion of white to red corpuscles exceeded a somewhat arbitrary standard. At this time mere numbers of corpuscles are not regarded as sufficient to determine such a classification. But recognizing the elements that are normal to the blood we are enabled to detect extraneous corpuscles that may be introduced through disease, and knowing the source of the elements, normal and pathological, the origin of the diseased process may be determined.

Two varieties of leukemia are recognized. In lymphatic leukemia the small lymphocytes are greatly increased. The other white corpuscles are relatively diminished, but not actually. This form is rare. The common variety of leukemia is the splenic-myelogenous form. The blood picture in this condition is typical.

There is an increase of the white elements that may overtake the red in number. The increase is in the polynuclear neutrophiles especially; the eosinophiles are also increased and may greatly exceed the average number. There is a reduction, both relative and actual, of the red corpuscles, and nucleated red corpuscles may be present. But what is particularly characteristic of this condition is the appearance in the blood of myelocytes. These elements are derived from the bone marrow and have never been found in the blood in any other disease. The eosinophilic cells are derived from the bone marrow also; the polynuclear leucocytes from the spleen. Basophiles are found in this disease occasionally.

Hence it follows that such a picture must be taken to indicate a case of splenic-myelogenous leukemia irrespective of the proportion of white to red cells. It has been shown that in leucocytosis the increase of white cells is of the polynuclear, neutrophilic variety, and besides the absence of the myelocytes there is a relative diminution of the eosinophilic cells.

In pernicious anemia the red corpuscles are greatly diminished, as few sometimes as 350,000 to the cubic millimeter are present. There is a relative increase of hemoglobin and the red corpuscles are larger than common. Nucleated red cells are found, both the normoblasts and megaloblasts. The white elements are not sensibly affected, although relatively they are increased. A peculiar alteration of the red corpuscles whereby their discoidal shape is lost and bizarre forms are substituted, poikilocytosis, is encountered. The phenomenon of poikilocytosis was supposed at one time to be characteristic of this form of anemia. We know now that it is an accompaniment of all severe anemias just as the nucleated red corpuscles may be.

LOUISVILLE.

AFTER several years' trial of the various methods of treatment which have been recommended for croupous pneumonia, Professor Petresco concludes that large doses of digitalis give the best results. He gives in the twenty-four hours an infusion of from four to eight grams of the leaves.

## Societies.

### THE CLINICAL SOCIETY OF LOUISVILLE,

Stated Meeting May 12, 1891, Wm. Cheatham, M. D., Vice-President, in the chair.

Dr. L. S. McMurtry : During the past three weeks I have operated in four cases of ovarian cystoma, and here present the specimens removed in the several cases. The first is a typical specimen of parovarian cyst. The patient was a young lady, nineteen years of age, from Kansas. The tumor was of three years' growth, and fortunately had never been tapped. There were no adhesions, and the operation was very simple. The cyst was developed in the broad ligament and the ovary lay alongside the tumor. The pedicle was very broad. The contents of the cyst was clear serum, and the cyst and fluid weighed twenty-six and a half pounds. No drainage-tube was required. The patient made an uninterrupted recovery.

The second tumor is one of unusual interest, both on account of its structure and the clinical history. The patient consulted me a year ago, when she was four months advanced in pregnancy. She had noticed the presence of the tumor three years ago, but considered it of no importance and did not consult a physician. When four months pregnant she was as large as one would expect at eight months. Her pregnancy was a very trying one throughout. For four months the lower extremities were swollen and she suffered severely from pressure symptoms. She had constant nausea and daily vomiting, with a bad complexion. In February last I delivered her of a large male child. Her labor was severe, but without any obstruction, as the tumor lay in such relation to the uterus as not to interfere. After her recovery from her confinement I sent her to the country, where she remained several weeks and was much improved in her general condition. The operation was done two weeks ago, and she is making an easy recovery. Immediately after her labor she suffered a mild attack of peritonitis. The adhesions were quite firm, and I had to strip away the tumor from the abdominal wall, from the small intestine, and from the adjoining colon and cecum. A drainage-

tube was required. She exhibited some shock from the operation, but reacted promptly and has done well. On examining the tumor it will be found that there is one large cyst which was filled with very thick chocolate-colored fluid, and at the base near the pedicle will be seen a large mass, which on being laid open is found to be a dermoid cyst. The tumor is a large compound tumor and weighed, immediately after removal, thirty-two pounds. This lady nursed her child up to the hour of the operation, and is rapidly regaining her accustomed good health after the perils of a complicated labor followed by ovariectomy.

The next case illustrates another variety of ovarian cystoma, being a polycyst. It is composed of a large number of composite cysts, and contains a gelatinous fluid so thick that it could not be drawn through the trocar. I had to enlarge the incision above the umbilicus and remove it *en masse*. The adhesions were numerous, old and strong. The patient was an unmarried lady about forty years of age. The tumor had been noticed two years ago, and had grown very rapidly within the last six months. The patient has the rheumatic diathesis. After inserting the parietal sutures and removing the sponge the pelvis was found to be filling with blood. This gave me some anxiety for a time, but it was soon evident that it was only an oozing from the denuded surface of the peritoneum, so I closed the abdomen. The drainage-tube was emptied by suction every fifteen minutes during the first twenty-four hours and the hemorrhage ceased. The patient was put to bed with pulse of ninety-six, and it has not risen, since the first day, above ninety. Her convalescence has been safe and uneventful.

The fourth case is interesting in regard to diagnosis. The patient had consulted several well-known surgeons, and the tumor had been pronounced to be an uterine myoma. Having doubt myself as to its exact character, I was prepared for hysterectomy at the time of the operation. You will observe that it is a polycystic tumor of the ovary with large cysts, exhibiting within one large cyst an extensive papillomatous growth. The incision required was a very large one, and the trocar was of no



use. The adhesions to the vermiform appendix and caput coli were very strong and gave much trouble in their separation. The pedicle was very large. The ovary of the opposite side presented as a cyst as large as an orange, and was also removed. The drainage-tube was used in this case. The operation was done last Saturday. She was put to bed with a pulse of eighty-eight, and is doing well in every respect.

This group of tumors illustrates all the important features in the pathology of ovarian cystoma, including almost every variety of form and structure, as well as most of the complications met with in diagnosis and treatment.

Dr. Simon Flexner: I am much interested in the specimens just presented by Dr. McMurtry. It is not often that we see so many varieties of tumors at one time, and these have more than a passing interest, as they represent a class of tumors that are written and spoken about a great deal at the present time. I have nothing to add to Dr. McMurtry's remarks on the surgery of these cases, but I regard the opportunity as favorable for a few remarks on the pathology of the subject.

In the first place, it is important to distinguish between the tumors arising from the ovarian structures and those having their origin in the peritoneum covering these organs. This is particularly necessary in the study of the cysts of these parts, and as a rule is simple enough, as the contents of the cysts will not permit us to fall into error.

When it is considered that it is the function of the endothelial covering of the peritoneal cavity to secrete serum, and that it is a property of the serum to coagulate spontaneously, we see just what properties such a cyst must have. Originating doubtless in an adhesion, and increasing gradually in size by the incarceration of the secretions, such a cyst may reach a large size. Its contents will be a clear and serum-like fluid at the time of removal, and susceptible of spontaneous coagulation afterward. The inner wall of such a cyst will be lined by endothelium and the fluid will contain at most a few lymph corpuscles. The first specimen exhibited by Dr. McMurtry is such a cyst; it developed in the broad ligament and is of peritoneal origin.

The specimen of combined ovarian cyst and dermoid is particularly interesting. These tumors are not rare singly, but their coincident occurrence is significant. The ordinary ovarian cystoma is readily distinguished from the peritoneal cyst. It contains a secretion derived from the epithelium, and its properties are markedly different from the serous secretion of endothelium. The fluid of ovarian cystomata does not coagulate spontaneously; it varies in color and consistence, depending partly at least on hemorrhage and duration, and often contains cholesterine and large numbers of compound granular corpuscles. The lining epithelium is ovarian, more or less modified.

The dermoid cyst is clear enough in its histology. It is an epithelial structure. It reproduces the elements of the skin and hair, and sometimes other epithelial structures are found in it. Its contents are mainly sebum derived from the sebaceous glands contained within its walls.

The present specimen illustrates well the embryonic doctrine of the origin of tumors as propounded by Cohnheim. According to this view the germs which give rise to tumors are brought into the world with the individual. They may be few in number and remain dormant for a long time, when, owing to some condition which we may not understand, they are enabled to proliferate. Being embryonic in character, they grow with the rapidity that characterizes embryonic tissues in general, and they may attain in a comparatively short time a considerable size. The germs that produce these tumors are derived from the blastodermic layers of the embryo, and they are included in the segmentation and differentiation of these structures.

The layers of the blastoderm are closely interwoven in those situations in which development is complicated, and it is especially in such situations that tumors are commonest. This is the case in the ovary. Leucke pointed out the probable congenital origin of dermoids, and no other explanation is feasible. Klebs was the first to show that ovarian cystoma developed from rudiments of Pflüger's ducts which were arrested in their development. This specimen then becomes valuable in its bearing on

the question of the embryonic origin of tumors of the ovary.

The third specimen, a multilocular cyst or polycyst of the ovary, is another example of true ovarian cystoma. The contents of the cyst in this instance indicate the diversity of the epithelial secretion; and these may be partly due to colloid degeneration.

Finally, there is a papillomatous ovarian cystoma. This form of cystoma is very interesting in its development. Much has been written on these tumors and their origin has been held variously to be the epithelium of the Wolffian body, of the surface of the ovary, or the germinal epithelium. Recently it has been shown by Williams that papilloma of the ovary originates from the germinal epithelium by an ingrowth into the Graafian follicle, which enlarges and becomes a cyst. This ingrowth has been observed in a very early stage, and transitions have been seen to the typical growth.

Dr. J. A. Ouchterlony: I wish to say a few words about one of these patients, the third one. I happen to know something about that patient in years gone by. Dr. McMurtry has spoken of the case from a purely surgical standpoint, Dr. Flexner from a pathological standpoint. I want to say a few words from the standpoint of a general practitioner. We come in contact with these cases at a much earlier period than the surgeon does; certainly much earlier than the pathologist. I wish to call the attention of the Society to the influence of the uterus and its appendages, not so much upon the general system as upon the nervous system. I think it but natural that so profound a disturbance as that involved in the morbid process presented should very seriously affect the system at large. The patient from whom this tumor was removed is a maiden lady of uncertain age. Several years ago she began to manifest very peculiar nervous phenomena with psychological disturbances. She showed considerable excitement, abnormal energy, and ill-regulated nervous manifestations. The connection between such nervous disturbances and such extensive ovarian lesions has not attracted the attention from the profession which it deserves. I have often noticed that the presence of fibroid growths about the uterus give rise to consider-

able nervous irritation, and psychic disturbance that was so manifest in the early period of this case must undoubtedly be attributed to the development of these ovarian lesions.

Dr. A. M. Cartledge (by invitation): The specimens exhibited and the discussion of these cases are both interesting and instructive. The first thing which impresses me is the remarkable discrepancy between the observations of surgeons with large experience in abdominal work as to the exact nature of these growths. Mr. Tait, with his large experience, states that he has never seen an instance of a purely unilocular ovarian tumor. The second case reported by Dr. McMurtry, which upon removal would seem to be a single cyst, after careful examination is found to be a compound tumor containing, with the large cyst, a dermoid cyst. The dermoid cyst was not found until the tumor was examined after removal. The first ovarian tumor I removed I regarded an ovarian cyst, but after examination found it to be a cyst of the parovarium. I concur fully with Dr. Flexner's indorsement of Cohnheim's theory as to the origin and development of the several varieties of ovarian tumor.

Dr. A. M. Vance (by invitation): Through Dr. McMurtry's courtesy I had the privilege of seeing all these cases, both before and during the operation. As already stated, the first case was very clear in all its indications and in the execution of the operation. In the other cases there were some difficult points presented during the operation, the decision of which required promptness and responsibility. All four cases demonstrated the impossibility of accurate diagnosis, both as to the exact nature of the tumor and the extent of the adhesions, before opening the abdomen. In the second case a very important point was presented for decision during the operation. It was to determine what should be done with the ovary of the opposite side. It was found to be practically normal, but doubtless somewhat enlarged so soon after pregnancy, and the woman being young it was wisely decided to leave it. I have never seen just such a fluid as this tumor contained. It was very dark and thick, containing many coagula. The contents of the cyst in the third case were also peculiar.



There were three different colors in the various cysts. The fluid was thick and very sticky.

The hemorrhage mentioned by Dr. McMurtry in this case made an important point for decision in the operation. After the stitches were introduced, on removing the sponge from within the cavity a quantity of blood rose up in the incision. Examination of the pedicles showed them to be secure, and it was decided that the hemorrhage was from the denuded surfaces and would take care of itself. It was an important point to decide, as to have kept the patient on the table to search for bleeding points would have jeopardized her life. In these operations the surgeon must hold his judgment alert and decide these questions instantaneously.

Dr. Simon Flexner read a paper on The Histology of the Blood Corpuscles. (See page 76.)

#### DISCUSSION.

Dr. H. A. Cottell: I have been instructed and entertained in the author's very learned and fresh discourse on the blood question. It would seem that we are likely to get out of recent blood researches some facts of positive diagnostic value, but as yet there is little the physician can turn to practical account. If simple anemia were an earlier stage of pernicious anemia, its early recognition would be a matter of the greatest importance to the physician and concern to the patient. On the other hand, if the two diseases be etiologically and pathologically distinct, and this is almost certainly true, an early examination of the blood would not be of importance in either, since, as between malarial and non-malarial affections, the diagnosis can be made therapeutically. Simple anemia under tonics, stimulants, and constructives will get well, while pernicious anemia will kill its victim in spite of treatment. Two cases in point recently came up in practice. The symptoms in the two were identical. Both patients were young women, both were waxy in color, both showed cardiac inadequacy, and both being exhausted took to bed. One under arsenic, iron, strophanthus, hypophosphites, wine of coca, and proper food made a beautiful recovery, the other, with the same treatment and

better nursing, got progressively worse and died. While I am sure that a study of the blood in each case would have revealed points of pathological interest, I am satisfied that it would have made no difference in the results.

Dr. J. A. Ouchterlony: It seems to me that the only way we could discuss this question would be from a histological standpoint. It is the one from which Dr. Flexner has stated the subject, and I do not feel quite competent to the task. Whenever I have a case that requires this sort of investigation I turn the examination over to some of my friends who are skilled in this kind of research. I have been very much interested.

Dr. L. S. McMurtry: Like Dr. Ouchterlony, I can not pretend to discuss the paper, but I wish to express my appreciation of the study Dr. Flexner has so lucidly and succinctly presented to the Society this evening. While he was speaking I could not but be impressed with the activity that is going on in this department of research, and the impression was made in my mind that ultimately these studies will bring to the practitioner most valuable results.

L. S. M'MURTRY, M. D.,  
*Secretary.*

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The electric wires have already brought the news that two members of the Leprosy Commission at Allahabad have found, or believe they have found the bacillus of leprosy. It is now stated that, having succeeded in isolating this terrible little organism, Dr. Barclay and Mr. Kanthak have found it practicable to cultivate it in an artificial medium, such as bouillon and gelatine. Their next step has been to inoculate a rabbit. The result was that distinct leprosy nodules were discovered in the body of the animal which was unlucky enough to be selected for the experiment. This, it is observed, is the first time that the bacillus of leprosy has been successfully grown outside the human body. How the alleged discovery bears upon the theories for and against the conta-

giousness of this fearful malady is a matter for future consideration.

The Austrian authorities are "down upon" the medical men concerning the legibility of prescriptions, and the Minister of the Interior calls upon all burgomasters to see that doctors write clearly and distinctly, so that mistakes shall be rendered, as far as possible, a thing of the past. They are to see that every prescription is properly written in every part, and that there shall be no doubt as to remedy, dose, and signature. This does not seem asking too much in any prescription, especially as so much depends upon a clear understanding between prescriber and dispenser; but in this country, as is only too well known, illegibility is the distinguishing feature of a vast number of prescriptions. "Doctors and parsons," says an authority, "write the most fearful and mystifying fists." It is most distinctly important that a dispenser should not have to pore over and rack his brain to understand odd words, and then possibly be wrong in the end. The patient at least suffers, and in some cases the benefits the patient has a right to expect will not be accorded him. The British Medical Journal says: "If the average handwriting of Austrian medical men is as cryptic in its character as that of many of their brethren in this country, it is to be feared that many worthy men, in the upper not less than in the lower professional circles, will have to go to school again till they have at least learned to sign their own names so that they can be read without the aid of divination."

The death of Sir Prescott Hewett leaves nine medical baronets. Sir William Jenner and Sir James Paget have been baronets for twenty years, but no other medical title of which the first holder is alive dates further back than 1883. That was the year of Sir Joseph Lister and Sir Spencer Wells and Sir Andrew Clark as well as of Sir Prescott Hewett. Since then medical baronetcies have been given to Sir William Bowman, Sir George Porter, Sir Henry Ackland, Sir William Savory, and Sir Richard Quain, all of whom are still alive. It will be seen that the surgeons have the lion's share. The medical baronet is not a new creation. There are thirty-five families in

existence holding hereditary titles, whose fortunes were founded by famous physicians and surgeons. Many of them now own large properties. Sir Edward Hulse, whose son was the donor of the famous Tranby Croft counters to the Prince of Wales, owes his title and £12,000 a year to George II's physician. Sir Henry Wilmot and Sir Henry Halford had similar beginnings, but so far the only medical peerage is that of Lord Knutsford. Unlike Sir William Gull and Sir George Barrows, the late distinguished surgeon has not left a large fortune.

The sad suicide of Dr. Charles Sheppard has cast quite a gloom in medical circles, where he was well known. Dr. Sheppard was an expert in administering anesthetics, and had commenced giving the inhalation to a young lady on whom an operation was about to be performed, when he noticed a change. He at once called to his medical colleagues, but death had taken place. The sad event had such an effect upon Dr. Sheppard that he returned to his consulting rooms in a state of great agitation, and later in the day was found dead, with a bottle and glass at his side which had contained prussic acid. At the inquest the medical testimony was to the effect that death had resulted from prussic-acid poisoning. The coroner in summing up said no doubt the death of the young lady was a great shock to the deceased, who had administered chloroform many hundreds of times. There was no doubt that his death was due to his own act, at a time when his mind had become unhinged.

Mr. Heath, remarking upon a series of interesting cases of operation of inguinal colotomy for annular carcinoma of the rectum pointed out that within the last few years the choice of two forms of colotomy had been offered to surgeons, both being very suitable in certain cases. At first Mr. Heath was rather unwilling to take up inguinal colotomy, as he had had such success with lumbar colotomy, but he was now convinced that in cases of cancer of the rectum without obstruction the inguinal operation was at once the easiest operation for the surgeon and the best for the patient. When the disease was in the upper part of the rectum or in the sigmoid flexure and there was obstruction, he still performed lumbar operation, and he did not



think it justifiable to run the risk of flooding the peritoneum with fecal matter.

Sir James Hector, M. D., Director of the Geological survey of New Zealand, has been awarded the Founders' Medal of the Royal Geographical Society of London "for the great services rendered by him to geography and the allied sciences by his various papers on the physical features, geology, and climate of British North America, the result of investigations pursued under great difficulties while serving as naturalist to the Palliser expedition of 1858, also for the long series of papers contributed by him to English and colonial journals." Sir James Hector is a native of Edinburgh and a graduate of the University of Edinburgh.

The Privy Council have heard the application for a new charter for the Albert University, which proposes to grant medical degrees to London students. The case for the charter was opened at length, and at the close of the sitting the case for the University of London was mainly devoted to an objection to the use of the word "London" in the degrees of the new university. The charter is opposed by the Colleges of Physicians and Surgeons in Ireland, the Royal Colleges of Edinburgh, and the Glasgow Faculty. The Irish and Scotch colleges ask to have extended to them all privileges which may be granted to the London colleges. The London colleges appear practically in support of the charter, and the British Medical Association and other bodies have also petitioned on the subject. The decision of the Privy Council can not be known for some time, as the inquiry has been postponed until the end of the month.

Dr. Parsons has made for the Local Government Board a thoroughly scientific investigation of the influenza epidemic of 1890, and written thereon an exhaustive report, which, though it leaves the origin of the disease still a mystery, dissipates a good many speculations. There was no reason, it seems, to trace the epidemic to Russian or Chinese miasms, or to attribute it to fog or still atmosphere or the abundance or absence of ozone. A more probable theory appears to be the presence in the air of some living, multiplying organism, though the microbe of influenza, like those of smallpox

and measles, still eludes the bacteriologist. The peculiarity of the germ is its rapid reproduction, so that it spreads with amazing celerity, but, as Dr. Parsons shows, the epidemic did not travel faster than man. Moreover, it was a fever, not a catarrh, and was followed in many cases by instant prostration. It is pointed out, in a note which is added in regard to the outbreak of the present year, that one attack is no protection against another, if indeed it is not a predisposing cause. Perhaps the most useful lesson is that the greatest risks occur where numbers of persons are gathered together in inclosed space, and that free exposure to the open air is the best protection.

Dr. Howard recommends an iodoform dusting powder for syphilitic sores, composed of iodoform 100, thymol 200, and sugar of milk 1 part.

LONDON, July, 1891.

## Abstracts and Selections.

**THE TREATMENT OF RHEUMATIC HYPERPYREXIA.**—The occurrence of hyperpyrexia in acute rheumatism, though happily rare, is a complication of grave import, and demands most active and immediate treatment.

Previous to 1870, cases of cerebral rheumatism with extreme pyrexia were mostly regarded as hopeless. In this year, however, Meding published a case of rheumatic fever in which a temperature of 108.6° was successfully reduced by means of cold effusion and iced enema, and in the following year Wilson Fox further drew the attention of the profession to the subject by his treatise on Hyperpyrexia, and described very fully two cases of extreme pyrexia (temperature 107.3° and 110°), where the treatment by the external application of cold was carried out with success. Since that time the value of this method of treatment has been universally recognized.

It has been abundantly proved that excessive rises in temperature—in rheumatism, at all events—can not be kept in check by drugs alone. Quinine has been given in large doses, as much as 120 grains in six hours. In the case reported below the patient was saturated with quinine. He had been taking 12 grains *per diem* for a fortnight previously, and on the approach of hyperpyrexia large doses were given and continued without any apparent effect on the temperature. Salicylic acid and its salts are powerless, and the complication has

often arisen in patients who have been throughout their illness treated by full doses of this drug. Antipyrin and antifebrin are transient in their effects, and are dangerous to continue from their depressing effect on the heart, which is probably already weakened by the disease. Antifebrin was given to the patient, A. H., on November 4th. The temperature did not rise during its administration, and it certainly had the effect of causing some moisture to appear on the skin, which was previously harsh and dry. Delirium was not relieved. It was not thought advisable, in his weak condition, to continue its use.

Relying therefore solely on the employment of cold in reducing excess of temperature, we must decide at what temperature this treatment must be commenced. Wilson Fox has never seen a case of rheumatic fever recover unbathed after a temperature of  $106^{\circ}$  has been attained. Merghison has known a case recover after a temperature of  $106.5^{\circ}$ , but he states that this must be extremely rare.

In other diseases, such as typhoid fever and pneumonia, a temperature of  $108^{\circ}$  has been reached and recovered from without special treatment, but Wilson Fox thinks that the "power of sustaining life in acute rheumatism after excessive temperature is less than in other diseases;" therefore we can not afford to wait so long.

Some ten years ago the Committee of the Clinical Society of London made an exhaustive inquiry into this subject, and in their report they show the necessity of not allowing the temperature to exceed  $105^{\circ}$ . Thus in six out of eleven fatal cases (unbathed) the temperature did not reach  $106^{\circ}$ , and they have shown that the treatment by cold is more successful the earlier it is commenced. Moreover, the temperature may rapidly rise when once it begins. In a case mentioned by Fox the temperature ran up from ordinary to  $109^{\circ}$  in two hours.

There are practically but two methods of applying cold to the surface of the body with the view of reducing temperature, by means of the bath and by the cold pack.

When the bath is used it is recommended that the patient be lowered into it in a sheet at a temperature of  $90^{\circ}$  to  $100^{\circ}$  F., and that it be cooled down by adding cold water, or preferably pieces of ice, till it is reduced to  $60^{\circ}$  or  $70^{\circ}$ .

He should remain in the bath till the thermometer, placed in the rectum, has fallen to  $101^{\circ}$  to  $102^{\circ}$ , unless any symptom of faintness or shivering require it to be discontinued earlier. In many cases the patient's temperature continues to fall after his removal from the

bath. He must be rubbed dry, and placed in bed lightly covered with blankets. If the temperature fall too low or the patient is shivering, hot bottles and stimulants are required.

The cold pack is best applied in the following way: The patient remains in his bed. He is stripped of all clothing, and a mackintosh is placed under him. Towels are wrung out of iced water and applied to the trunk, head, and limbs. These are changed frequently, and the body sponged over with lumps of ice. An ice-bag should also be applied along the whole length of the spine. The temperature must be carefully watched as before, and the pack discontinued when its reduction has been effected.

The choice of method to be employed must depend on the circumstances of the case.

In hospital practice, where sufficient assistance and all appliances are at hand, the bath is generally preferred. It is doubtless a more thorough method, and appears to be attended by no greater shock or risk to the patient. On the other hand, in private practice it is seldom that the bath can be satisfactorily employed, and for several reasons the pack may be preferred. It can be applied at once, it is less alarming to the friends, it does not necessitate the moving about of the patient, it can be carried out by one intelligent attendant without constant medical supervision, and its effect on the patient can be more readily watched. Moreover, it has been proved to be thoroughly successful even in extreme cases of hyperpyrexia. Temperatures above  $110^{\circ}$  F. have been recovered from after treatment by the cold pack as well as by the bath.

In some cases one bathing is sufficient to effect reduction of temperature, no further excessive rise taking place. In others it has required to be repeated, and it has been used as often as twenty-six times on the same patient with ultimate success. (See Report of Clinical Society.)

The length of time required for reduction varies considerably, and bears no proportion to the severity of the case. In the case reported, the time that the pack required to be used varied from half an hour to three hours.

The following facts will give some idea of the proportion of recoveries that may be looked for after this treatment:

Wilson Fox collected a series of twenty-two cases from 1867 to 1871, temperatures ranging between  $106^{\circ}$  and  $111.7^{\circ}$ . Eighteen were treated by ordinary means without the application of cold, and all were fatal. The remaining four were treated by the cold bath, and three of them were successful, the highest temperature being  $110^{\circ}$ .



The Committee of the Clinical Society of London collected a series of sixty-seven cases during the ten years ending 1879. In thirty-nine of these the temperature exceeded  $106^{\circ}$ , and in thirty-four the treatment by cold bathing was adopted, and fourteen recovered, the highest temperature being  $109^{\circ}$  to  $110^{\circ}$ .

Of the more moderate temperatures among these (viz., between  $106^{\circ}$  and  $107^{\circ}$ ), eight out of eleven cases recovered, over two thirds. All the cases that were unbathed died.

In the ten years ending 1890 many cases of recovery have been reported from time to time in the journals, and I have been able to find a record of sixteen cases with thirteen recoveries, temperatures ranging from  $106^{\circ}$  to  $110.4^{\circ}$ . The pack was used in eight of these with two deaths, and the bath in the remaining eight with one death.

It is not possible, of course, to form an accurate idea of the proportion of recoveries from the study of published cases alone, as it is probable that many unsuccessful ones have not been published, while the majority of successful cases have been put on record. Still there is ample evidence of frequent recovery after extreme temperatures, which under other conditions must certainly have been fatal.

While, however, recognizing the success that often follows the employment of cold in rheumatic pyrexia, we must ascertain if there are any dangers attending its use.

Bristowe records a case where the cold bath on two occasions produced such serious faintness, after five minutes' immersion, that it had to be discontinued.

At Guy's Hospital, during 1874 and 1877, death took place on two occasions during immersion; but in these cases the bath was probably too long delayed, and the heart and tissues had suffered too much from the excessive heat to withstand the shock.

In several cases violent purgation has resulted after immersion.

In a case previously reported by the writer tetaniform convulsions, which occurred after the first application of cold, were so exaggerated on the attempted repetition of the pack that it was impossible to apply it. The patient eventually died asphyxiated during a convulsive spasm. Another case of a similar kind has also been recorded.

These difficulties, however, appear to be exceptional, and it is well to note that the various visceral lesions, such as pericarditis and ammonia, so common in acute rheumatism, are no contra-indications to the use of cold. Indeed, as Wilson Fox asserts, intense pyrexia predisposes to congestion of internal organs, and the physical signs of such have been frequently

observed to clear up during treatment by cold.

The following case is recorded, not, unfortunately, as an example of a cure after cold packing, but to show the marked effect of this treatment in keeping the temperature within bounds over a prolonged period, its reduction being effected on each of the eight occasions on which it was used. It further shows that on the discontinuance of the treatment there followed a rapid rise of temperature, with exaggeration of all the symptoms until the fatal termination. The case also illustrates the variability of the time required to effect a reduction of temperature:

A. H., aged thirty-two, a man of good *physique* and previous excellent health. First complained of rheumatic symptoms on September 25th. In course of a week had developed severe acute rheumatism affecting most joints, profuse sweating, temperature from  $101^{\circ}$  to  $103^{\circ}$ . Was treated by salicylate of sodium, 20 grs. every four hours, with bicarbonate of potassium and ammonia.

During third week copious friction was heard over precordia, with dyspnea and cardiac pain. No improvement resulting from treatment, either in reduction of temperature or relief of pain, it was discontinued after three weeks, and a mixture of quinine, digitalis, and opium substituted, the latter on account of restlessness and want of sleep.

Took liberal allowance of milk, whisky, and beef tea. Showed no improvement, varying from day to day, considerable prostration, unable to move in bed. Body literally covered with sudamina. Precordial friction continued without evidence of effusion or endocarditis.

November 1st (sixth week after illness). Evening temperature  $104^{\circ}$ ; had restless, excited look. Given quinine, grs. x., and sponged over frequently with cold water.

November 2d. Prevented from seeing him till 12 noon, when he was delirious, flushed, and wild-looking; partly conscious, with high pulse and rapid breathing; temperature  $110^{\circ}$  in axilla. As is usual in such circumstances, pain and swelling had left his joints, and he could move freely in bed. Sweating had entirely ceased.

He was at once put into a sheet wrung out of iced water, and body well rubbed over with ice. During first ten minutes temperature rose to  $107.6^{\circ}$  (rectum). In half an hour it fell to  $103^{\circ}$ , and pack was discontinued, as it caused shivering and discomfort. He was rubbed dry and lightly covered with blankets. Patient now seemed quite himself. Delirium had ceased, and his condition in every way im-

proved. Quinine, grs. v., given every hour (larger doses were vomited).

During afternoon temperature again rose above  $104^{\circ}$ . Pack was repeated, and temperature reduced to  $101^{\circ}$ , with immediate relief of symptoms. (Duration of pack not recorded.)

A trained male attendant was engaged, and directions given him to take temperature every hour. When it approached  $103^{\circ}$ , spinal ice-bag (Chapman's) was to be applied to the back, and if it approached  $104^{\circ}$  the pack was to be used by means of towels wrung out of iced water, changed frequently, and by "ice sponging." The pack to be continued till temperature fell to  $101^{\circ}$  or discomfort complained of.

The spinal ice bag was chiefly of service when used in conjunction with the iced towels. When employed alone, it appeared on the first occasion to delay for several hours a threatening rise, and the second time, when the bag was allowed to remain after the removal of the towels, the temperature continued to fall for three hours, and rose again slightly after it was removed. On another occasion, the afternoon of November 5th, the temperature rose rapidly in spite of it.

There is little doubt the patient's life was lengthened for some days by the treatment. It prolonged a period when the efforts of nature might have brought about a change for the better, had other conditions been favorable.

Previous to the onset of hyperpyrexia, the patient's strength was already exhausted. He had been ill for over five weeks, with constant pain and want of sleep. Pericarditis had existed long enough to cause such local organic changes as seriously hampered the action of his heart, and this further lessened his chances of recovery.

Such a case impresses upon us the necessity of making a most careful record of temperature in all cases of acute rheumatism, and of recognizing at once the earliest signs of approaching hyperpyrexia.

Should the temperature show an undue rise, we should not waste valuable time by the administration of drugs, but endeavor to check it at once by the prompt application of cold.

The result of such treatment in a favorable case is most gratifying. The patient may be dying from excess of temperature one hour, and the next may be in comparative comfort, and with prospects of a speedy recovery. One bathing has frequently turned the scale. The treatment may be applied readily both in private and in hospital practice, and should not be withheld from any patient, in whatever circumstances he may be placed.—*Dr. H. C. Male, London Practitioner.*

THE PRACTICAL TREATMENT OF SINUSES. ESPECIALLY THOSE FOLLOWING AMPUTATION. If we can argue, from the want of recent literature on the subject, that the treatment of sinuses has received its full consideration and reached a point where further mention of it can only burden the already overcrowded journals of the day, then my labor is in vain, and I stand alone in still not finding a satisfactory solution to the matter. Perhaps, to my discredit, the cursory way in which the treatment of sinuses has been dismissed in most of the surgical works to which I have had access has not proved sufficient to guide me in the satisfactory management of all cases, especially those of which to-night I offer an example.

I shall not enter into a discussion at great length of the etiology or pathology of sinuses, nor shall I overpower you with a bristling array of authors and books, but in the plain language of an ordinary wayfaring practitioner state my case and how I managed it.

As the term sinus is used somewhat indefinitely—by many as a synonym of fistula—we may accept as a fair definition "an unnatural suppurating canal which opens externally." "If it communicates internally with one of the normal canals or cavities of the body, it is usually termed a fistula."

*Structure.* The structure of the walls of sinuses is materially influenced by the cause and by the duration. Sir James Paget has thus described them: "When they have existed long, say for one or more years, and are not inflamed, the walls are commonly hard, 'callous,' not highly sensitive or easily bleeding, and formed of condensed connective tissue inseparable from the adjacent tissues. In more recent states the walls are soft, like ordinary layers of recent granulations, sensitive, readily bleeding, and easily broken through. In diseased states they may be, as the surfaces of ulcers may be, inflamed, spongy, or edematous, exquisitely sensitive, or sloughing." The granulations lining the walls of sinuses vary with the differences in the walls themselves, being in recent cases "coarsely granular and soft," and in old cases "dense and firm, smooth on their free surface, with scarcely a trace of granular or papillary arrangement." The cells of the granulation tissue are either indistinguishable from pus cells or filled with fatty particles, and the pus is that of an unhealthy process until the sinus begins to heal.

*Orifices.* It is unnecessary to do more than refer to the varied orifices—sometimes, indeed, too small and insufficient to provide a free escape for the pus, sometimes larger, with edges at times thick, often thin and flabby. One characteristic of the edges in the class of si-



nuses to which I shall especially direct your attention is the tuft of granulation tissue, a pouting lip, exuberant and projecting out of and above the surface of the orifice.

*Etiology.* In regard to etiology we need only give passing mention to the three general heads under which the author already quoted brings sinuses and fistulæ: "Abscess, wound, or gangrene and ulceration." The sinuses following amputations are almost always directly traceable to some fault in the minutiae of the operation or the patient's condition, and to the latter it is always a source of comfort—so prone are we to lay blame anywhere except on ourselves—to be able to refer the trouble. A factor of prime importance in producing sinuses in this condition is the drainage, and in two ways: either because of its insufficiency, or because it is too prolonged. In either case we may have considerable trouble, but generally neither is in itself a source of insurmountable difficulty; but when there is added the death of ever so small a piece of the bone, or osteo-myelitis more or less severe, the former often starting from some neglected spicula, the latter from faulty antisepsis (or asepsis), or the severity of the injury, we are brought face to face with a more prolific source of annoyance to ourselves and the patient, and it is a case of this kind that I present to-night. The history is as follows:

In August, 1889, the patient sustained an injury causing a lacerated wound that completely divided tendo-achillis, and made a compound fracture of the astragalus and os calcis. A tenorrhaphy of the tendon was made and drainage provided for the fractures, but August 31st, a week or ten days later, an amputation was demanded. At the time of the operation the patient's pulse was 120, and temperature 101°; there was extensive inflammation of the foot and lower third of the leg. The site of operation was the upper and middle thirds, bilateral flap method, oblique piece taken off the crest of the tibia, periosteal flaps, and full drainage. Shock was profound, but patient rallied nicely, and on September 30th, the note reads: "Feels all right. Stump almost healed. Patient told to go home." October 21st a large sloughing pocket in the stump was opened, and the cavity packed with balsam gauze. November 11th a sequestrum of bone was removed from the sinus over tibia. There were now two sinuses, and the stump was redressed every two or three days; and on January 17, 1890, the note records: "Discharge thin. It is almost entirely stopped at present, and looks as if the sinus was going to close." Instead, the discharge from a third sinus made its appearance in the flap, and it was clear that other measures

had to be employed. On February 4, 1890, the same preliminary details were followed that would have obtained if an amputation was to be done. The operation consisted in taking out a wedge-shaped piece that included the cicatrix and two of the sinuses. When bone was reached it was found that the fibula was diseased and crumbled under the fingers, the disease extending to its upper extremity. The end of the tibia was also diseased, and of this an inch was removed. The diseased fibula was removed by a sharp spoon, and all small pieces of bone and cicatricial tissue trimmed out with scissors curved on the flat. The sinus wall in the side of the inner flap was trimmed out. A drainage-tube for each bone, one for the muscles, and iodoform gauze in the flap sinus made the drainage, and an abundant antiseptic dressing completed the operation. It seemed impossible to avoid an amputation at the knee-joint; but as the patient's consent had not been obtained, further operative procedures were left for the future. On February 14th, ten days after the operation, the dressings were removed for the first time; there was immediate union along the edges, and everything seemed to be satisfactory. The tubes were left out and iodoform gauze put lightly into the holes thus left. Four days later it was re-dressed, and on February 22d patient was sent home. Four days later, February 26th, the patient was discharged cured; and you see him now after more than a year's interval with no evidence of any further trouble.

This brings us, then, to the practical treatment of sinuses. The question of prophylaxis, which Davies-Colley says "constitutes a large part of the practice of surgery," is not a part of my theme, but I can't refrain from pointing out the fact that it is especially important at the time of the operation to remove all of the little pieces of bone that may be in the wound and to see that all the sharp points at the end of the bone or bones are rounded and smoothed by the surgeon. Periosteal flaps are still in dispute, although the consensus of opinion is to save enough periosteum to cover the end of the bone, whether it is allowed to simply fall over the end or is actually and independently sewn there. I still find the drainage-tube of service, although I appreciate that it may also be a source of trouble; but I have found it easier to close a sinus caused by a tube than to close one due to the lack of it. Other details can be passed without mention. If a sinus already exists, no form of injection is comparable to thorough curetting with the Volkmann sharp spoon. If the wall is thick, either splitting it through and through and scraping its sides, or actually dissecting it out entirely—a

valuable method in old sinuses from other causes mentioned by Roberts) and either making immediate approximation with sutures or packing with gauze and using sutures in from twenty-four to forty-eight hours, can be commended. If the bone is diseased, it is easier to say "the removal of any source of irritation is all that is required in many instances in which every other method of treatment will completely fail" than to remove the source of irritation; but if a sufficient incision be made, even to the extent (as in the case presented) of removing the whole cicatrix, and the bone then fearlessly assailed and a free opportunity given to remove all that is diseased, we can hope to get a permanent cure. Rest of the part is always an important adjunct to other measures. Injections—to those already known, iodine (weak solution), carbolic acid, nitrate silver, zinc chloride or sulphate, permanganate potash, sol. iodoform ether, and a host of others; let me call especial attention to the hydrogen peroxide, pure or in strong solution (fifty per cent)—have seldom proved of great service in the sinuses following amputation. With the cautery in such cases I have had no experience. General tonic treatment might be indicated in individual cases. To recapitulate then: In sinuses following amputation thorough curetting of this sinus and the diseased bone, if any, at the end of it, followed by light packing with iodoform or any antiseptic absorbent gauze would be a good initial step. If unsuccessful, the probability is that there is more disease of the bone than can be reached through the sinus and the end of the bone (or bones) must be fully exposed, preferably by an incision taking out the whole cicatrix. If the sinus is one of long standing and has already given considerable trouble, we may avoid delay by adopting this measure from the outset. Then all cicatricial tissue in the stump and all of the bony fragments in the under surface of the stripped up periosteum must be carefully trimmed out with scissors. Firm pressure with gauze dressings or with a sponge rung out of a hot carbolic solution (one per cent) is a valuable adjunct (more particularly in breast cases). Every effort should be made not to leave to the tissues the disposition of any little fragments of bone. Thorough drainage with a full sized tube should be provided for the first few days, and afterward light gauze packing will answer. The same precaution and details should be followed that would be indicated for an original amputation, and if these measures be carefully, antiseptically, and fearlessly followed out the result will almost certainly be satisfactory.—*Dr. C. S. Cole, Gaillard's Medical Journal.*

CASE OF PUERPERAL FEVER COMMENCING NINE DAYS AFTER DELIVERY.—I think a few notes on this case may be of sufficient interest to find a place in your columns.

On August 30th at 7:30 A. M. Mrs. D. gave birth to a male child, this being her fifth confinement. She was attended by a midwife. On September 8th at 11 A. M., by request, I first saw Mrs. D. The woman in attendance told me "the labor had been easy, the after-birth coming away half an hour after the child, and that until 9 o'clock that morning the mother had been doing splendidly. At that time she began to shiver, looked strange about the eyes, and talked quietly. She had had plenty of milk, had suckled the infant several times through the previous night, and there had been no bad smell about the discharge." On examination I found the patient looking terribly ill, dorsal decubitus, knees not being drawn up; she was more or less delirious. Skin moist, tongue thickly furred. The temperature  $104^{\circ}$ ; pulse 140; respiration 40 per minute. Abdomen was not swollen, and there was not the least tenderness on pressure above the pubes. The lochia were not offensive, but the condition of the bedclothes was not so clean as one could wish. This I saw remedied, ordered her the usual diet (milk and meat broth), and ordered a mixture containing ten grains of salicylate of soda with two minims of tincture of aconite every two hours, promising to call again in the evening. At 7:30 P. M. I found her in much the same condition. She had been delirious through the day, but had taken freely of nourishment without vomiting. Had passed two copious and offensive motions. Temperature  $105^{\circ}$ ; pulse 160; tongue dry. I syringed her with diluted Condy and order an ounce of brandy every four hours. On the 9th I visited her twice. The temperature at 11 A. M. was  $105^{\circ}$ ; at 8 P. M.  $104^{\circ}$ . Her general condition was much the same. The breasts were soft and contained very little milk. The lochia had ceased. There was no swelling of the abdomen or tenderness. She had taken nourishment freely, and the bowels had not been moved. She had not vomited. Had dozed at times, and been less delirious during the latter part of the day. She was syringed morning and evening. On the 10th, at 11 A. M., she expressed herself as feeling much better, and certainly looked so. She had taken plenty of nourishment without vomiting and had slept fairly well during the night. Temperature  $102^{\circ}$ ; pulse 108. I syringed her as before, and gave a mixture containing five grains of quinine every three hours, and promised to call the following morning. On the 11th I was sent for at 8 A. M. and found her condition



as follows: Face anxious; slightly jaundiced tint; lips bluish; skin moist; dry tongue, with sordes about the teeth. She was quite conscious, and complained of cough and of pain about the wrists, elbows, and knees, which were slightly swollen. The abdomen was much swollen. There had been some diarrhea, but no vomiting through the night. The nourishment had been taken freely. Temperature  $102^{\circ}$ ; pulse 130; respiration 40 per minute. The sputa were brownish, and on percussion and auscultation there were well-marked signs of pneumonia in both lungs. From this time onward she went from bad to worse, and died on September 14th at 11:30 A. M.

I have seen many cases of puerperal fever during the time I have been practicing, and in all previous to this my experience has accorded with what is stated in the works I possess on midwifery. That the initial rigor in this case did not take place until the ninth day I can not doubt, as the patient told me she had never felt better than she did until the morning of September 8th. Information gained from those who had seen her on the 6th and 7th tended to corroborate this. No doubt the exciting cause of the disease was lack of cleanliness; and I imagine, as she was very stout and flabby, the reparative process was more slowly accomplished, and thereby the susceptibility to septic influences unduly prolonged. So good an authority as Lusk writes: "The third day is the one upon which ordinarily the beginning of the fever is to be anticipated. After the fifth day an attack is rare, and at the end of a week patients may be regarded as having reached the point of safety." Other authors I have at hand take much the same view, and although they agree in saying that the disease may occur later, I fancy a case in which it commenced on the ninth day is sufficiently rare to make it worthy of record.—*George H. Salter, London Lancet.*

**THE INFLUENZA.**—I have observed several times of late, in persons who had suffered from the so-called Russian influenza in the epidemic of 1889-90, a train of symptoms which suggest to my mind a second attack of the complaint of an incomplete or abortive kind. At any rate they seem to point to something more than a mere coincidence. I have taken notes of five cases in all. In general, the earliest and leading symptom is giddiness, not by any means of an intense nature, but sufficiently uncomfortable, the patient usually complaining that the ground seems to heave under his feet as he walks. The giddiness is most marked when he commences to walk after sitting for some time, and is generally absent when he is sitting or

lying down. Other symptoms, more or less pronounced in character, and given as far as possible in order of frequency, are, lassitude, sometimes with slight muscular tremors, especially referred to the knees; drowsiness, heaviness, and dull aching of the eyes; depression of spirits, lumbar pain, constipation, slightly furred tongue, perhaps anorexia. In most of my cases the urine was high colored, and in some urates were deposited, but in other respects it was normal. One patient, a gentleman aged forty-one, after having ailed for nearly a week, had a syncope attack. His heart seemed perfectly sound, and he had never fainted before in his life. None of the patients had elevation of temperature (in two it was subnormal) or acceleration of pulse, rigors, pains in limbs, marked headache, respiratory or pulmonary complications, and in no case did one feel bad enough to lie up. I was mostly consulted for supposed liver derangement after the symptoms had been hanging about for several days, but in almost every case the patient informed me he had never before been troubled with his liver. The indisposition generally lasted from five to fourteen days or more, and though a trivial one, yet it seemed an odd coincidence that each patient should have suffered months before from epidemic influenza. In treatment I seemed to get some good results from a blue pill and seidlitz powder, followed by a mixture containing quinine, strychnine, and nitro-hydrochloric acid.—*E. G. Younger, M. D., M. R. C. P., Ibid.*

**TROPHIC DISTURBANCES IN HYSTERIA.**—Under this title a lecture by Pitres appears in the *Progrès Medical*, and the cases dealt with are five in number. The first is that of a young woman who, after a disappointment, suffered from some hysterical manifestations, and when she came under observation was suffering from edema, confined to the left leg. The swelling was hard and resistant and did not pit on pressure. There were contraction of the visual fields and hemianesthesia. The knee jerk on the affected side was diminished. A cure resulted after magnetization. The next case referred to is one of paralysis of both legs, with complete flaccidity, which had come on suddenly after a miscarriage. There was anesthesia of the legs, with a loss of sense of position, and sinapisms on being applied provoked neither pain nor redness. There was notable lowering of the temperature of the affected limbs. The visual fields were contracted, and a complete cure was effected by brisk faradization. The third case is one of wasting of the left hand and arm, which had commenced apparently some months after a wound inflicted in the pectoral region so long ago as 1882.

There was a characteristic *main engriffe*, wasting of thenar and hypothena eminences, but the electrical reactions are said to have been absolutely normal. There was anesthesia over the left arm and over parts of both sides of the chest and back. There was also anesthetic areas on the head and marked but almost equal contraction of the visual fields. This case was diagnosed as one of hysterical atrophy consequent on traumatism, but the subsequent process is not reported. The fourth case was one of facial paralysis of the right side with diminished electrical excitability, which recovered completely in a month; while the last one is that of a girl who had several attacks of paralysis, supposed to be hysterical, and who was said to have developed a bed sore in those attacks, and on one occasion to have suddenly and painlessly several teeth to drop out without apparent cause. It is evident that all these cases present anomalies, and to the American mind at least the acceptance of the diagnosis of hysteria in several is difficult. We are prepared to grant that all the patients were what we understand by hysterical, but we are not prepared to say that there was no underlying organic affection. A patient in whom there is edema of the leg below the knee, with diminished knee-jerk, even if the visual fields are contracted and there is hemianesthesia, is not necessarily the victim of hysteria alone. We should say that the probabilities were all the other way. Nor can we at all understand why facial paralysis, with diminished electrical irritability of the muscles, and with all the classical appearances, should be called hysterical. The only apparent reason is that it occurred in a girl. The last case of all is related as one of trophic disturbance occurring in hysteria; but as the patient was not seen when she was paralyzed, and as moreover the existence of the bed sore—the trophic disturbance referred to—was taken entirely on hearsay and had left no cicatrix, we can not see any sufficient reason for including it in the group of hysteria, far less for citing it as an example of trophic disturbance in that affection.—*Gaillard's Med. Journal*.

**FRIEDLANDER'S PNEUMOCOCCUS AS A FERMENT**—It has been known for some time that Friedländer's pneumococcus is capable of inducing fermentative changes in suitable solutions of glucose and cane sugar, this having first been discovered by Brieger. His observations have quite recently been confirmed by Dr. Percy Frankland, Mr. Arthur Stanley, and Mr. William Frew, who have just communicated a paper on the subject to the Chemical Society of London. They further found that the organism ferments maltose, milk sugar,

raffinose, dextrin, and mannitol, but that, like the bacillus ethaceticus, it does not attack dulcitol. They made a special study of the fermentations of glucose and mannitol, determining quantitatively the proportions in which the several products are formed. These products are in each case ethyl, alcohol, acetic acid—generally accompanied by a little formic acid and a trace of succinic acid—carbon dioxide, and hydrogen. Both the glucose and mannitol were in all cases only partially fermented, and the decomposition of the glucose was especially incomplete, glucose being apparently less readily attacked by the organism than mannitol and cane sugar. The fermentation was not rendered more complete by furnishing the organism with a more abundant supply of nitrogenous food. The products of the mannitol fermentations were not only qualitatively similar to those obtained in the fermentation of the same substance by the bacillus ethaceticus, but the relative proportions in which they were formed were almost identical, the ratio corresponding closely to the molecular proportions  $2\text{C}_2\text{H}_5.\text{OH} : \text{CH}_3.\text{CO}.\text{OH}$ .—*London Lancet*.

**CARDINAL POINTS IN BACTERIOLOGY.**—The Bacteriological World says:

The words germ, bacteria, microbe schizomycetes are used in our present literature almost as synonymous terms, but microbe seems preferable to germ or bacteria, and schizomycetes is a better scientific term than either.

That these are unicellular, and assimilate nourishment, seemingly by absorption in the media in which they live, but they must transform (alter) the foods found proper, and yet unfit in nature, for their use and appropriation.

Bacteria living on dead matter encounter no living resistance, while those feeding on living tissues, or fluids in living tissues, meet the living cells of the body and have to combat them.

The diastases secreted by the various beings, whether highly organized, or unicellular and microscopic, have something in common as to their respective objects, and their properties of transforming matter.

The rôle of microbes in the world is complex and necessary, though some are injurious. They act as scavengers, return to the air and water the organized elements abstracted daily by the vegetables of the globe, and indirectly by animals, and are indispensable to life.

The bacteria that invade living organisms which happen to be fit for their nourishment and growth are in a sense parasites just as much as the tapeworm is.

Spontaneous generation of living organisms, no matter how little, is a fallacy.



**TEMPORAL HEMIANOPSIA.**—To the Society of Ophthalmology at Paris, M. König gives a careful account of a case of temporal or heteronymous hemianopsia. The patient was a young woman aged twenty-two, who for some time had had epileptiform attacks, and gradually lost sight over the external half of each field of vision. Such a result is almost always due to some tumor of the base of the brain, which presses upon the chiasma. In this patient there was some atrophy of the optic nerves, more marked in the right eye than the left. The boundary of the field of vision passed very accurately through the middle point. That there was some tuberculous tumor at the base of the brain seemed theoretically probable, but at the same time the patient was in good general health, and her epileptiform attacks pointed rather to a hysterio-epileptic condition than organic disease. M. Parinaud, who had made an independent examination of the patient at the Salpêtrière, agreed with the description of the symptoms, and thought it most probable that they were due to some tuberculous growth at the base of the brain, which was healed or at least quiescent. M. Debierre gave an account of a similar case of temporal hemianopsia, in which the only organic disease he had found in accompaniment was acromegaly.—*Le Progrès Médical*.

**WHAT IS THE BEST NUTRITIVE ENEMA?**—Nutritive enemata, though often indicated in cases of esophageal or gastric disease, are comparatively rarely used, because of the general skepticism as to their utility. Either they are of but little nutritive value, as in the case of bouillon, or they are difficult of absorption by the rectum, as in the case of milk. Leube suggested in 1872 the use of pancreatized beef pulp, and afterward Ewald proposed the peptones of meat and of cheese as offering suitable material for rectal feeding. There is no doubt that the substances recommended by these writers are, in part, at least, absorbed by the rectum. Nevertheless, their use has never become general, because of the difficulty of their preparation. Ewald, as a result of further experiments, found that eggs, even though not peptonized, were to a considerable extent absorbed by the rectal mucous membrane. According to the *Mercredi Medical* for April 1st, Huber, of Zurich, has recently repeated Ewald's experiments in Professor Eichhorst's clinic, and announces that the absorption of the raw eggs is greatly aided by the addition of common salt. The salt is well borne, and causes, as a rule, no irritation of the bowel. He considers that eggs beaten up with salt, in the proportion of fifteen grains to each egg, are the best form

of nutritive enema. His method of procedure is as follows: Two or three eggs are taken and thirty to forty-five grains of salt are added to them. They are slowly injected by means of a soft rubber tube carried as high up into the bowels as possible. Three such enemata are given daily. An hour before each enema the rectum is cleared out by means of a large injection of warm water.—*New York Med. Jour.*

**HYOSCINE IN MANIA AND INSOMNIA.**—Mal-filatre and Lemoine report in the *Gaz. Méd. de Paris* the result of a trial of hyoscine on some sixty-two patients, chiefly of the maniacal class. (Practitioner, xxxvii, p. 321.) The results obtained were very favorable. In the great majority of cases they found that they had either an immediate and continued hypnotic effect from very small (three to five tenths centimeter) or moderate (one centimeter) doses administered hypodermically, and in only a very few were larger doses required, and also that there did not appear to be such uncomfortable lasting after-symptoms as sometimes contraindicate the employment of other hypnotics. These investigators feel justified in affirming that in hyoscine we have an excellent palliative in all conditions of insomnia with agitation, but they decline to commit themselves as regards its curative effects. Its inconveniences are the temporary intoxication it produces in some very sensitive individuals, and the necessity of steadily increasing the dose to produce the hypnotic action in some few others.—*The Dublin Journal of Medical Science*.

**COMPOUND FRACTURE OF THE SKULL.**—A case is reported by Dr. Rohrbauch, in the *New York Medical Record*, of a boy who had been kicked on the head by a pony. When first seen he was semi-conscious, with paralysis of the left lower extremity. There was a scalp wound in the right parietal region an inch from the middle line, and the bone underneath was fractured and depressed. The following day the patient was trephined, and the depressed bone raised and removed. The dura mater was found divided and the brain lacerated in the region of the superior parietal lobule four lines to the right of the longitudinal fissure. A considerable quantity of the injured brain substance came away in the process of cleansing the wound. It was dressed antiseptically, and in spite of some breaking down, followed by a slight discharge of pus, and accompanied by paralysis of the left arm as well as of the legs, improvement gradually took place; but the legs remained somewhat paralyzed, a result apparently of the secondary degeneration consequent on the destruction of brain substance.—*Lancet*.

# The American Practitioner and News

"SEC TENTI PENNA."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } Editors.

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## INSANE ASYLUMS AND THE INSANE.

Elsewhere in this issue will be found the full text of an able paper, under the above heading, by the well-known alienist, Dr. H. K. Pusey, of Louisville. This paper was read at the May meeting of the Kentucky State Medical Society, where it received favorable attention and gave rise to a discussion which led to the adoption of the following preamble and resolution:

As there is in Kentucky no commission of lunacy or organization of any sort whose duty it is to look specially after the interests of the insane or the institutions for their benefit, and as the public depends on the medical profession to suggest and originate all measures of reform and improvements in the treatment and care of the insane,

*Resolved*, That this Society appoint a committee, to consist of three of its members, whose duty it shall be to investigate the subject of providing and caring for the insane of the State, with especial reference to what is claimed to be the modern and more economical method, which, as variously modified, is known as the combined system, the detached or block-building plan, and the village and colony plan; and that said committee shall report all information obtained on this subject, together with its own impressions, to the House Committee on Charitable Institutions at the next meeting of the State legislature.

This resolution proposes, as will be seen, to memorialize our State legislature upon a topic no less noted for its importance than for the ignorance of the profession and public concerning it, and we are glad to see upon the commit-

tee to whom the work is intrusted the names of three wise, experienced, industrious, and popular physicians. They are Dr. H. K. Pusey, of Louisville, Dr. B. W. Stone, of Hopkinsville, and Dr. T. B. Greenley, of West Point. We commend Dr. Pusey's paper to the careful consideration of our readers, in full conviction that his efforts to bring about measures which shall minister more fitly to the physical comfort and mental sanitation of that cruelly afflicted and generally forgotten class of the community known as the insane will be warmly seconded by every physician who reads the author's story and eloquent pleading.

We are far from hinting that the State is intentionally remiss in providing for its mentally unsound citizens; but that our asylums are not what a better understanding of the needs of this class of sufferers would certainly make them can not be doubted by any man who sanely views the situation.

We believe that the labors of Dr. Pusey in this direction will bear something better than Dead Sea fruit for those of our citizens whom fate compels to wander in the dread wilderness of lunacy.

## LOUISVILLE SURGICAL SOCIETY.

The regular annual meeting of this Society was held on the 20th ult., when the following officers were elected for the ensuing year: President, Dr. E. R. Palmer; Vice-President, Dr. A. M. Cartledge; Secretary, Dr. John G. Cecil. The bestowal of the presidency upon Prof. Palmer, who was the originator of the Society, and who since its beginning has been one of its most industrious supporters, is a well-placed honor.

The limit of membership has been extended from twelve to fifteen. The Society closes, as our readers well know, a fruitful year, and begins a new one with increased assurance of prosperity. We shall continue to publish its valuable proceedings.

SEVERAL valuable papers have been held back from recent issues, to make room for State Society matter. They will soon appear.



## Notes and Queries.

### THE AMERICAN SOCIETY OF MICROSCOPISTS.

This association, now in the thirteenth year of its existence, will hold its fourteenth annual meeting in Washington, D. C., August 10th, and continue in session five days. Its roll of active members contains about three hundred and fifty names, embracing very nearly every person in the United States who is at all prominent as a microscopist. Its membership consists of two distinct classes, viz., professional men and students of the natural sciences, who use the microscope in their daily avocations as an instrument of research, diagnosis, or precision, and amateurs, or those who find pleasure and profit in the revelations of the instrument. Many of the latter class, from having early chosen special lines of study and investigation, have acquired high reputations in their respective departments of microscopical research. In its earlier years this class predominated in the membership of the Society, but at present the professional element is largely in excess.

The qualifications for membership are very simple. The applicant must be a respectable person socially, and interested in the use of the microscope.

The advantages of membership are dual in their nature, that is, general and social, or those which accrue to the individual from association with others engaged or interested in the same pursuits in any and all walks of life; and special, in that the meetings of the Society are to a certain extent educational in their nature. In the "working sessions" experts in every department of microscopical technology are engaged in giving manual demonstrations of the details of their lines of work; in the informal evening "conversaciones" the room of every worker who has any thing special to exhibit or demonstrate is open for the reception of all those who wish to witness the demonstration; finally, the *soirée* affords an opportunity of displaying for the benefit of the members, as well as the public generally, all that is most beautiful, interesting, and instructive in the cabinets or laboratories of the exhibitors. Of late years the *soirées* have been attended by many thousands of visitors in every city in which the So-

ciety has met, and have been regarded as distinguished social as well as scientific events.

The dues are trifling, only \$2 per annum, and in return the member gets a volume of the Annual Proceedings, which costs very nearly this amount. These proceedings are elegantly and profusely illustrated with photo-engravings, autotypes, chromoliths, and wood-engravings, done in the highest style of art. There is scarcely a subject in the whole range of microscopical work upon which information may not be found by reference to the indexes of these volumes, and collectively they form a library of microscopy full of invaluable matter to the student and worker.

The railroads have of late years extended excursion or convention rates to and from the places of meeting, and although no arrangements have as yet been definitely made, we can assure our readers that the Washington meeting will be no exception to the rule. Indeed, it is probable, from the fact of the meeting of the American Association for the Advancement of Science in Washington only three days after our adjournment, that a more than usually advantageous arrangement may be obtained.

The museums and libraries, as well as the many other objects of interest of the National Capital and its surroundings, will be open to the visits of the members, and special facilities for seeing them will be accorded.

Special hotel rates will also be secured. An announcement of the railway fares, hotel rates, etc., will be made hereafter.

In view of the facts related, and from assurances that we have already received, we are justified in saying that there will be present the largest number of old members of the Society ever in attendance at an annual meeting.

We invite and urge upon all persons, professional or amateur, interested in microscopy and not already on the rolls, to send in their applications for membership to the Secretary, Dr. W. H. Seaman, No. 1427 Eleventh Street, Washington, D. C. The application should be accompanied by \$3, which is the initiation fee and one year's dues. As it is more than probable that the initiation fee will be increased in the near future, it will be to the advantage of

all who contemplate membership to send in their applications before the next meeting.

Any further information concerning the Society or the approaching meeting may be obtained upon addressing any of the undersigned:

Frank L. James, President, Box 568, St. Louis.

W. H. Seaman, Secretary, No. 1427 Eleventh Street, Washington, D. C.

C. C. Mellor, Treasurer, No. 77 Fifth Avenue, Pittsburgh, Pa.

**CALCUTTA CHOLERA RETURNS.**—Receiving, as we do from time to time, the periodical reports and appended vital statistics issued by Dr. W. J. Simpson, medical officer of health to the city of Calcutta, we are reminded again of the unenviable notoriety which the capital of our Indian Empire retains as the cholera center of the world. Ever since the issue of Dr. Koch's work, after his Indian visit of 1884, in which he exhibited, by means of plates and chapters of descriptive matter, the glaring sanitary defects of the native portions of Calcutta, as also the abundance of those conditions which favor the excremental contamination of air and water in the midst of the population, we have felt that nothing short of the most strenuous efforts in the direction of securing wholesome water to drink and reasonable purity of air to breathe could meet the demands which might fairly be made of those responsible for the health of Calcutta. Month by month Dr. Simpson attaches to his report a chart in which red dots tell the number and locality of the cholera deaths, and the map for February, now before us, shows how densely these deaths are massed together in certain quarters, and how these dots, though diminutive in point of size, well nigh cover entire areas of the city. It is sincerely to be hoped that the Indian Government and the Municipality of Calcutta will not become so accustomed to the evidence which Dr. Simpson's maps periodically afford as to lose a due sense of the task which that evidence so imperatively imposes upon them.—*Lond. Lancet.*

**MODERN DISCOVERIES OF NEW CURES.**—With painful and patient pen we record the

birth of a new treatment for phthisis, the sixth in four months. The hopeful author and discoverer this time is Dr. Tranjen, of Sistow, Bulgaria. He doesn't seem to have any front name, but that may be the fashion in Sistow. Prof. Dr. C. A. Ewald writes a supplement to Dr. Tranjen's communication and also publishes the details in all their rosy tabulated promise in the *Berliner Klinische Wochenschrift*, an organ for practical doctors. The refrain which Dr. Tranjen plays upon Prof. Ewald's organ is like that of other discoverers. We are having prepared a lithographed form for the benefit of future ingenious therapeutists in this same line. It will read like this:

"Form I. Dr. X. has discovered a new remedy for phthisis. He reports . . . cases. The results have so far been very satisfactory. In early stages it produces decided improvement and sometimes a cure. In later stages it does not do so much good, but sometimes causes remarkable improvement before the patient ultimately dies. Dr. X.'s new treatment promises to be a useful addition to our therapeutic armamentarium, and deserves further trial."

We shall be very glad to furnish "discovery blanks" of the above type to our clinical workers.

But meanwhile we had almost forgotten to say that Dr. Tranjen's new discovery consists in the hypodermic injection daily, for seven to ten days, of a solution of thymolo-acetate of mercury, at the same time giving the patient iodide of potassium. The results are accurately described in Form I, as given above.—*Medical Record.*

**THE PREVENTION OF PHTHISIS.**—The high rate of mortality from phthisis induced the State Board of Health of New Hampshire to secure the opinion of the physicians of the State upon certain points in connection with the disease, such as its cause, frequency, preventability, treatment, etc. To this end blanks were sent to all physicians of the State asking them to answer nineteen stated questions. The returns were exceedingly complete, and as reported in the recently issued annual report of the State Board of Health make interesting



reading. A summary is almost impossible, but the Board presents the following:

The chief causes and the preventive measures to be employed in the disease may be summarized in the light of our present knowledge of the disease as follows:

1. Pulmonary phthisis is the most fatal disease known to civilization.

2. The bacillus tuberculosis is generally believed to be the cause of the disease.

3. The disease, when developed after the first years of childhood, is acquired and not inherited, although there may be an inherited predisposition which renders the subject incapable of resisting the invasion of the bacilli.

4. The disease is liable to appear at any period of life.

5. That there is great danger arising from the use of tuberculous meat and milk. From the evidence which has been gathered we are led to believe the liability to infection from these sources is very great, and to insure public protection in this particular the State should exercise a careful supervision of our milk and meat supplies.

6. That the greatest danger of infection is from the sputa of the consumptive. For this reason, when confined to the house, a spit-cup or spittoon should be used, and when upon the street a handkerchief to receive the expectorations. The spit-cup or spittoon might preferably contain a disinfectant, but if these vessels are frequently and thoroughly cleansed with boiling water, disinfectants are not an absolute necessity. The handkerchiefs should be immersed in boiling water at least once daily before the sputum has become dried.

7. No person should occupy a sleeping-room with another who has tuberculosis, although many persons escape infection under such conditions.

8. The eating utensils of a consumptive should be washed in boiling water, and care should be exercised that the same glasses, spoons, etc., are not, before being washed, used by children and others. The patient should avoid kissing others or placing in his mouth any article likely to be used or handled by others.

9. The dejections of consumptive patients in cases where the bowels are affected should be thoroughly disinfected.

10. Perfect cleanliness of the apartments occupied by consumptives should be urged in all cases. The bed-linen, towels, etc., should be very frequently put through the operations of the laundry, while the walls should be frequently cleansed and dressed anew. In fact the whole question of restriction may be expressed in one word "cleanliness."—*Med. and Surg. Reporter*.

IDENTITY OF SMALLPOX AND COW-POX.—Eternod and Haxiers (*Semaine Médicale*, No. 58, 1890), from the results of their experiments on the transference of smallpox from man to the calf, are convinced that smallpox and cow-pox are caused by the same virus. For the purpose of inoculation smallpox lymph from cases varying in severity was used, and was rubbed into a moderately large extent of scarified skin in the abdominal region of the calf. The first inoculation was followed in every case by a scanty crop of pustules at the spot chosen. This eruption had at first very little resemblance to typical cow-pox, but on transferring the disease from calf to calf it became more and more characteristic, until in the opinion of the authors it was impossible to distinguish it from true cow-pox. The calves vaccinated in this way with human smallpox lymph were found in every case to be refractory to vaccination with ordinary cow-pox lymph.—*Boston Medical and Surgical Journal*.

THE ARROW POISON OF THE PIGMIES.—Surgeon Parke, the medical officer of Stanley's expedition, has recently given a lecture before the London Pharmaceutical Society, on the arrow poisons of the pigmy race. The poisons are evidently of a very fatal character, since all members of the expedition, with one exception, who were struck by the arrows died. The poison is made by pounding together into a paste the bark of a certain tree, some long, green leaves from an herbaceous plant, the shoots of a creeper, scrapings from the stem of a common shrub, and a few small seeds. The whole is made into a paste which is stuck on the tops of the

arrows and allowed to dry. It is said to lose its strength in a few days.

From specimens brought home some of the plants have been identified. It is probable that the mixture owes its poisonous qualities largely to strychnine and erythrophlein. — *Ibid.*

**TEST FOR PURE ANTIPYRINE.**—According to Dr. Gille, in the *Deutsche Medizinische Zeitung*, April 13, 1891, pure antipyrine may be tested by the following methods: (1) The concentrated watery solution of antipyrine should have no effect either upon red or blue litmus paper. (2) Pure antipyrine melts rapidly when exposed to heat, and gives off inflammable gases, without leaving any unmeltable deposit or carbonated residue. (3) One gram of pure antipyrine should be entirely taken up by one gram of water or alcohol. (4) Sulphuretted hydrogen throws off no deposit in a watery solution of antipyrine.

**THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION** will hold its seventeenth annual session at St. Louis, Wednesday, Thursday, and Friday, October 14, 15, 16, 1891. Reduced rates and an excellent programme will bring out a large attendance. The medical profession is respectfully invited. The officers are as follows: C. H. Hughes, M. D., 500 N. Jefferson Avenue, St. Louis; E. S. McKee, Secretary, 57 W. Seventh Street, Cincinnati, Ohio; I. N. Love, M. D., Chairman Committee of Arrangements, 501 N. Grand Avenue, St. Louis, Mo.

**THE UNITED STATES MEDICAL PRACTITIONERS' PROTECTIVE ALLIANCE** held its first annual meeting at Baltimore, June 11th and 12th. The Society was incorporated under the laws of Maryland. Officers for the ensuing year were elected, and such other business transacted as was necessary to establish the Alliance on a basis of permanence. As usual in meetings for organization, comparatively little work could be done outside the regular routine in such cases. Addresses were delivered by the officers, and several papers on Alliance work in general were read and discussed. The proceedings will be published in a few weeks.

## SPECIAL NOTICES.

Dr. W. S. Hoy, of Wooster, Ohio, Medical Examiner and Surgeon for the B. & O. S. W. R. R., says: I am not in the habit of giving testimonials, yet, unsolicited, I desire to say to the Medical Profession that in all forms of heart complications, Cactina Pillets (Sultan) will not disappoint them. It is to the heart what Quinine is to malaria. My extensive use of the drug, as prepared by the Sultan Drug Company, fully warrants me in saying that it has no equal in the treatment of Tobacco Heart, Angina Pectoris, Interpalpitum Pulsu, Cardiac Palpitation, Anemia, Dropsy resulting from heart disease, Heart-failure, Cephalic Neuralgia, and as a certain Heart nutrient and strengthener. It will not disagree with the stomach and is entirely devoid of accumulative action.

**HAY FEVER REMEDIES.**—Whatever may be the theory of the causation of hay-fever, the question to physician and patient is how shall the symptoms be relieved? Mere mention of the remedies that have been tried would almost make a treatise on materia medica.

Among these we wish to call attention to a few which have proved their efficacy. These may be conveniently described under two heads, viz., remedies for local use and for internal administration.

Local medication may include Cocaine in a four-per-cent solution, in tablet form or in nasal bougies. A good formula for bougies is the following: Hypon-chlorate of Cocaine, 1 grain; Atropine, 1-200 grain; Cocoa butter, q. s. The bougie may be held in position by a pledget of absorbent cotton soaked in cocaine solution.

Menthol may also be used with advantage in ten to twenty-per-cent solution in olive or almond oil, and applied to the nasal membrane with a brush, or in spray or simply inhaled.

Fluid Extract Witch Hazel, distilled, and Fluid Hydrastis for local application are often of value in the catarrhal symptoms.

For internal administration to abort the paroxysms *Grindelia Robusta*, *Euphorbia Pululifera*, and *Quebracho* may be resorted to either alone or in combination. These remedies have shown their specific antispasmodic action in asthma, and, accepting the neurotic origin of hay-fever, must be conceded to be of service in restoring normal respiratory action in the distressing paroxysms of hay-fever.

Parke, Davis & Company supply all of these agents in eligible form, and will afford all desired information concerning them.

In gastric affections and debilitating diseases, so prevalent during the summer, Maltine with Pepsin and Pancreatin, and Maltine with Phosphate, Iron, Quinine, and Strychnia will be found exceptionally valuable, their base being a powerful reconstructive and digestive.

An eight cent bottle of each will be sent upon application to any physician who will pay expressage.

THE MALTINE MANUFACTURING CO.,  
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The Editors of this Journal have made use of Maltine, plain and in combination, for many years, and take pleasure in again recommending it to our readers as substantiating fully the reasonable claims of its manufacturers.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

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No. 4.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

## Original Articles.

### THE SNOOK-HERR POISONING.\*

BY JAMES SHREVE CHENOWETH,

*Assistant to Chairs of Surgery and Clinical Surgery, University of Louisville.*

On May 15, 1891, there were present at a wedding, celebrated near Louisville, about eighty people, including the servants.

The company had lunch between two and three o'clock in the afternoon, and within twenty-four hours seventy of those who had eaten of it were taken violently ill. That some article or articles of food were poisoned was evident, but what the poison was was not known.

The opinion of several well-known physicians, publicly expressed, that the trouble was undoubtedly due to arsenic, was immediately accepted by the large mass of the people, and created a great deal of excitement, especially in the neighborhood where the tragedy occurred. The excitement rose to such a pitch that some so far forgot themselves as to mention the names of several whom they suspected of introducing the drug into the food.

The writer, having been called to the country to attend some of the sick, and appreciating the feeling which existed, and being convinced by a careful analysis of the symptoms of the cases in hand that the trouble was of fermentative rather than of mineral or other origin, made the statement in the newspapers to that effect,

believing that even should it prove to be wrong a good purpose would be served by checking criminal proceedings until a thorough investigation of the facts could be had.

This investigation was begun at once.

The lunch was served at 3 o'clock Wednesday afternoon, as follows: On the plate of each guest was placed a leaf of lettuce, a spoonful of chicken salad, a spoonful of mushrooms, olives, beaten biscuit, and a cracker; coffee, chocolate, ice-cream, and cake were served later. Water was drunk by nearly all. This water was originally from a spring near the house, this spring being five feet deep, six feet in diameter, and running in a continuous flow.

The cream used in the coffee and chocolate was from milk of that morning, and kept in the spring-house until used. The ice-cream and cake were made in the city. The mushrooms were of the best brand, six cans in number, and obtained from a reliable grocer. The biscuit, salad, and coffee were made on the place.

The salad contained chicken, celery, olive oil, vinegar, salt, pepper, and mustard. The celery had been kept in the spring-house. The chickens and turkey used were killed on Monday, the 13th, and cooked the same day in an iron boiler. Two of these chickens not being thoroughly done were left all night in the boiler and cooked again on Tuesday, but the others were removed on Monday night and put, with a small quantity of their own liquor, in a safe in the room adjoining the kitchen, where they remained until Tuesday morning, when they were picked to pieces by Bridget Cain, the cook. She separated the light from the dark meat and returned it all to the safe, where it remained until Wednesday, when the other ingredients of the salad were added.

\* Read at a meeting of the Louisville Medico-Chirurgical Society, July 10, 1891.

Specimens of the water, dirt around spring, ham, biscuit, milk, and salad were obtained and divided between four competent chemists for analysis. No mushrooms could be gotten. The ice-cream, cake, coffee, and chocolate had been eaten by those not sick and untouched by many who were sick, so no analysis of them was necessary.

Inquiries were made in regard to exactly what substances were eaten by each individual who partook of this lunch, sick or well.

Of the eighty-one persons seventy were taken sick, while eleven escaped. None of the eleven ate salad or mushrooms, but did eat of all the other things. Quite a number of those sick did not eat mushrooms. Sixty-eight ate salad or chicken, the other two claiming that they ate none of it.

Seven cases of the sickness were seen by the writer and carefully examined, the symptoms being recorded at the time.

The symptoms presented were about the same in all, only differing in severity. The type of the milder form is shown in case first; that of the severer, in case second.

CASE 1. (Recovery.) Male, age twenty-three years, previous health not good. Symptoms came on eight hours after eating. There were at first slight cramps in bowels, soon followed by profuse watery, greenish stools; the bowels moved three times before vomiting occurred; the matters vomited were very sour. Fever ( $102.5^{\circ}$  F.), attended with chilly sensations and burning of soles of feet and palms of hands soon developed; some pain, with a sense of weight, in the back and limbs. Tongue coated, lips parched, thirst intense, pupils normal, skin hot and dry, with no eruption; abdomen was swollen and slightly tender; urine diminished in quantity; blood in neither vomit, stools, nor urine; no paralysis, spasms, delirium, or coma.

CASE 2. (Death.) Adult, female, previous health very bad. Symptoms came on four hours after eating (the earliest on record). Commenced with cramps in bowels, soon followed by profuse, watery, dark green evacuations. Vomiting then set in and was excessive; the matters ejected were sour and offensive. Pain in bowels slight; urine diminished. Tem-

perature  $103.5^{\circ}$  F. Skin was hot and dry; tongue foul; no eruption; no swelling of eyelids; no blood in vomit, stools, nor urine; no paralysis; no spasms, convulsions, delirium, nor coma.

After several day's sickness, the vomiting and purging continuing, the temperature became subnormal, the skin cold, clammy, and cyanotic; breathing labored; pulse weak; delirium appearing just before death.

In order to make this report as complete as possible blanks were sent to the physicians in attendance on the the victims of this feast, and a report of their cases requested.

Dr. J. W. Irwin, of Louisville, and Dr. Mitchell, of Cincinnati, refused any information about their cases, but the reports were kindly sent in the other cases, sixty-three in number.

Fifteen of these cases were excluded, as they were manifestly full of inaccuracies. (That these reports were not excluded without just cause was amply shown at the coroner's inquest.)

From a comparison of the cases at my disposal it seems that the chill, high fever, nausea, vomiting and purging, the matters ejected being dark green in color, cramps in bowels, pain in limbs, burning and tingling of feet and hands, with intense thirst and prostration were very constant symptoms. Two cases developed fever blisters, and several showed erythematous splotches over face and chest. Headache was observed in some cases, but was not a constant symptom. Suppression of urine occurred in one fatal case. There was no swelling of eyelids, spasms, paralysis, nor coma; no eruptions except those enumerated above, due to the disordered stomach, were observed.

A number of theories were suggested in explanation of this distressing affair, among them that the spring was poisoned; that Paris green had been put in the water-cooler; that verdigris from copper vessels had caused the trouble, or that croton oil had been mistaken for olive oil in making the salad. Others said that arsenic or sulphate of copper had been mixed with the food, while still others believed that tyrotoxicon or decayed mushrooms were the cause.



The absurdity of the idea that the spring was poisoned will be appreciated by any one who will glance at its dimensions and the volume of water coming from it.

There were no copper vessels used in the preparation of this food, so that verdigris may be ruled out.

Paris green, with its well-known color and taste, besides being a very quick poison, is so insoluble in cold water that any attempt to introduce it in that way would have been immediately detected.

Sulphate of copper has a metallic, styptic taste, and acts very promptly as an emetic. The symptoms were also entirely different from those produced by copper.

The theory that this was copper poisoning started in Cincinnati, and was suggested by the finding of a trace of copper in the liver of one of the victims, but as copper is found in the livers of persons in perfect health, no such deduction was justified.

Croton oil when taken internally immediately produces an intensely acrid sensation in the fauces, with heat, pain, and nausea when it reaches the stomach. This is soon followed by acute colicky pains and loose, watery stools. This was certainly not the condition here.

Tyrotroton is easily ruled out, as many of those sick used no milk or ice-cream at all.

The arsenic theory was more plausible, but a differential diagnosis from symptoms alone should have been made, even in isolated cases.

In arsenic poisoning, symptoms in the large majority of cases come on within an hour or two—often within a few minutes.

An intense "fire burning" pain in the stomach is the rule after arsenic, even when it is administered by the skin.

After arsenic nausea is intense, and the vomited matters contain a great deal of mucus and often blood, while the vomiting precedes purging, and is a more constant symptom.

The stools are dysenteric in character; in severe cases rice-water discharges are sometimes seen.

Abdomen retracted and tender to touch; pain increased by steady pressure.

In these cases no one was taken sick under four hours, while in some it was eighteen.

This delayed action occurring in seventy consecutive cases was enough of itself to rule out arsenic.

Here the pain was not very severe, and was colicky in its character.

Here there was great nausea, but the vomited matter was serous rather than mucous, and contained no blood. Purging preceded vomiting.

Some persons while deathly sick required an emetic before they would vomit.

The discharges were dark green, offensive, and semi-fluid, like those seen in cholera infantum. No blood present.

Abdomen swollen; slightly tender; the pain relieved by steady pressure.

Temperature at first normal or subnormal.

Pulse fast and weak.

Breathing labored.

Eyelids swollen and pupils dilated.

Cutaneous eruptions, unusually papular or vesicular, are often seen.

Spasms, paralysis, convulsions, and coma are often observed.

Temperature rose rapidly, and was in most instances preceded by a chill.

Pulse full and bounding.

Breathing slightly quickened, otherwise normal.

Both normal, except after administration of atropia.

Some redness of skin over face and chest in a few cases, due probably to disordered stomach, possibly to atropia. Fever blisters in two cases; a few boils in one, nothing distinctive of arsenic.

There was some weakness of all the muscles after the prolonged vomiting and purging, but here there was neither paralysis, convulsions, nor coma. (The one fatal case, which had suppression of the urine, became comatose before death; due to uremia.)

To recapitulate: After the administration of arsenic the symptoms come on quickly. These are nausea, vomiting, intense pain in stomach, diarrhea, burning of anus, thirst and constriction of throat.

Blood and bloody mucus pass by stomach and bowels. Urine may be suppressed and may contain blood. Patients soon show signs of shock and collapse. The skin becomes cold, clammy, and cyanotic; features are pinched; breathing labored; pulse fast and weak; temperature subnormal; pupils dilated, and eyes swollen.

Here, on the contrary, we had colicky pains coming on some hours after taking the poisonous food, followed by diarrhea, the stools being large, watery, dark green in color, and very offensive. Chills, high fever, burning of soles of feet and palms of hands, pulse and breathing quickened, skin hot and dry.

The symptoms of collapse seen late in some of these cases were due doubtless to the inspissation of the blood and collection of carbonic acid gas consequent upon the immense drain of serum which was taking place, and would be produced by any irritant capable of producing such a drain.

The intense thirst, which was a prominent feature in these cases, as in arsenic poisoning, was simply the call of nature to make up the great loss of water which was taking place by the bowel.

The difference between the symptoms in these cases and those poisoned by arsenic was

so well marked that one physician who was called to the Herr residence on the night of the 15th, where fifteen were sick, stated that while he had gone there prepared to treat arsenic poisoning, after examining the patients he saw no reason for believing that that drug was the cause of the trouble, and so he gave no chemical antidote.

In making up this report it was my desire to simply present the facts in the case in a perfectly impartial way, and to avoid personalities, but certain statements have been made in the public press and so persistently harped upon in private by advocates of the arsenic and mushroom theories, that it is impossible to ignore them and not leave the impression that they were borne out by the facts.

It has been stated that the salad analyzed by the chemists (three different specimens) was not the same as that served to the guests, and that even if it was the same, that it would not necessarily have contained the poison, as it might not have been thoroughly mixed.

That there was only one pan of salad made has been stated before, and this statement was made on the authority of the Herr family, backed by the written statement of the lady who prepared and served the salad.

Since seventy of the guests who were not looking for poison found it, it would seem reasonable to suppose that the mixing had been very thoroughly done, and that the three specimens of salad obtained by the gentlemen who were looking for poison, would have contained it.

Again, it was claimed that some persons only tasted the salad (which I will show later must have contained the poison).

There is a strong point against the mineral poison theory, although not so intended, for it will be found that these people were just as sick as those who ate a great deal, showing that the poison must have continued to generate after its introduction into the stomach, which would not have been the case with a mineral poison, where the effect is proportionate to the dose.

It was stated that arsenic was a very variable poison, and in this way was explained the difference of opinion expressed about these

cases. This statement could only have been made by one who had gotten garbled and inaccurate accounts of the cases, for it would be difficult to find seventy cases of any disease which would show such slight variations as were seen here, and it would be practically impossible to find such a number of cases poisoned by arsenic and none of them show the ordinary signs produced by that drug. The advocate of the arsenic theory claims that his cases showed unmistakable signs of arsenic poisoning, and this, taken in connection with his modified Reinsch's test, was perfectly conclusive. Wherein his four or five cases differed from the other sixty three I have been as yet unable to discover, although I understand that the doctor says that they did differ, and that he can furnish affidavits from his patients to that effect. I was sorry that I was unable to get a record of these cases, as it would have been interesting, and I have no doubt instructive, to have worked out the exact cause of their divergence from the rule. As the modification of the Reinsch's test done consisted in only doing the first part and omitting the last and most important steps of the test, no reliance can be placed upon it, as was shown by Dr. Kastenbine, whose ability as a chemist no one can doubt, he showing that the coating which was mistaken for arsenic contained no trace of that substance.

Lastly it was urged that the reason why no arsenic was found *post-mortem* was that it had been eliminated before death. This was a most excellent point, but unfortunately an analysis was made of the excreta of these very persons, taken when elimination would have been most active, and it failed to reveal a trace of the drug.

A great deal has been said about the treatment of these cases, and the claim made that those who had been treated for arsenic had recovered the most promptly.

What are the facts? From the evidence before the coroner's jury, and the reports from the physicians, which I have received, it appears that out of sixty-eight cases only seven received a chemical antidote to arsenic, and two of these not getting it until the second night; also that four, at least, of the fatal



cases were diagnosed as arsenic poisoning. It must not be inferred from this that the cases so diagnosed fared worse than the others, for a careful study of the plan of treatment shows it to have been much the same in all the cases, the physicians differing much more in diagnosis than in treatment.

The plan which seemed most rational and most successful consisted in evacuating the stomach and bowels by emetics and purgatives, preferably warm water and mustard and castor oil, or flushing with warm water, followed by morphia, atropia, digitalis, and whisky hypodermically, as indicated in each individual case. Bismuth and creosote were used by some with seeming benefit, but efforts to administer medicines or stimulants by the mouth seemed to the writer not only useless but but decidedly harmful in some cases, as they were almost immediately returned and only served to keep up the exhaustive retching.

Five of the six fatal cases were well advanced in years, and some of them also victims of antecedent disease which contributed no small share toward the fatal result.

The symptoms of sickness produced by decaying mushrooms (the poison being very similar) resemble so closely the symptoms in these cases that some other method than the study of symptoms is necessary to differentiate them.

The books of the grocer show the sale of six cans of mushrooms, brand "P. Pinard, Paris, Extra Choice," to Mr. A. G. Herr, on April 13th. The names of a number of persons using that brand, also the cheaper brand, and all without ill effect were furnished the writer. That no other mushrooms were taken out to the wedding is stated on good authority. These cans were opened on Wednesday morning, the mushrooms stewed in cream and served as before stated.

A number of persons afterward sick state positively that they ate no mushrooms, and while some allowance must be made for poor memories, it is not probable that so many were mistaken as to what they ate. Here it was urged that mushroom sauce was used over the salad which was eaten by the people; but as the salad was served cold and the mushrooms hot the absurdity of this is apparent. Added

to this were the positive statements of the lady who made the salad and of those who ate it that no mushrooms or derivative of them were in the salad.

It was said by Dr. Kastenbine, in favor of his mushroom theory, that a cheap brand of mushrooms (seventeen and a half cents per can) had been used at the wedding, and that a can of mushrooms taken from this stock had been found in a state of decomposition; also that mushroom sauce had been used in the salad, for he had found a few of their remains upon microscopical examination; that he had found the fungi in the feces of one of the patients, and that the symptoms were altogether those of mushroom poisoning. That this cheap brand of mushrooms was not used, but the brand which I reported above, was proven by the bill of the goods which was produced, and by one of the empty cans which had been sent Dr. Kastenbine by Dr. Collins, of Lakeland, a few days after the wedding. The doctor also forgot, in his desire to prove his theory, that the salad which he analyzed had come to him in this same can, from which the mushrooms had just been removed, which would have accounted for the spores which he discovered in it.

That the mushrooms appeared in feces which were examined was not to be wondered at, as the patient from whom they were obtained admitted eating them as well as the salad.

As for the symptoms, no attempt was made to differentiate between poisoning from poisonous mushrooms (muscarine) and that from decayed mushrooms (ptomaines), so the symptomatology was a little confusing; but, laying all else aside, the simple, undisputed fact that Bridget Cain was taken sick before the mushroom cans were opened disposes of that theory effectually.

It will be remembered that sixty-eight of the seventy-six acknowledge to eating the salad, and that none of the eleven who escaped did eat it. This is very strong presumptive evidence that the salad was the source of mischief.

It was learned that four persons in Eminence, Ky., were sick who had not been present at the wedding, but had received food from there; so a letter was addressed to Mr. W. B.

Crabb and particulars requested. The following was received in answer:

DR. JAS. S. CHENOWETH, Louisville, Ky.:

*Dear Sir*—Yours of May 1st at hand. Mrs. Crabb and I were at the fatal wedding. I ate of every thing on my plate except the mushrooms; she ate heartily of every thing, consisting of salad, mushrooms, ham, beaten biscuit, drank no coffee or chocolate, but drank a glass of water. I drank a cup of coffee, also a glass of water. Mrs. Crabb brought nothing home with her but cake and salad. My daughter Fannie, son Lewis, and hired girl ate of the salad, and were all very ill. My son Guthrie ate only the cake, and was not sick at all. There were no mushrooms or sauce from mushrooms brought to Eminence, nor were there any mushrooms in the salad. If I can be of any service to you, I shall be glad to do it. Very respectfully,

W. B. CRABB.

EMINENCE, KY., May 9, 1881.

This statement fixes the fault on the salad beyond any doubt, and the question arises, if the poison was not one of the ordinary minerals or vegetables, what is it?

This salad contained chicken, celery, olive oil, vinegar, salt, peper, and mustard, was made on Wednesday morning and put in a tin pan on the side-board in the dining-room and was served from there to the plates of the guests.

The celery was fresh and clean; the dressing was repeatedly tasted by those preparing it—hence we are forced to conclude that the chicken held the poison.

Bridget Cain, the cook, was taken sick on Tuesday evening, the day before the wedding. It is worthy of note here that this was some fifteen hours before the cans of mushrooms were opened or the salad mixed up.

This woman ate a hearty breakfast on Tuesday morning at the Herr residence, but not feeling well she ate very little dinner or supper. Between breakfast and dinner she picked the chickens to pieces and ate some of the dark meat, remarking at the time that it looked darker than usual. This chicken was the only thing eaten by her on that day which was not eaten by the rest of the household and the only thing which was served on the next day to the guests. This corroborates the circumstantial evidence against the chicken.

The question now arose, were the chickens diseased with chicken cholera, which was known to be epidemic in the neighborhood, or was the poison a putrefactive alkaloid generated after the cooking of the fowls? An examination of

the fowls from which these had been taken failed to disclose any disease among them, and Mr. Herr stated that no disease had been among his fowls for years. Even had these fowls been diseased the cooking to which they were subjected would have destroyed, in all probability, the germs of disease and their ptomaines, so the poison must have generated after their removal from the stove. This deduction is proved to be true, for the giblets cooked in the stove, and the soup, made from portions of these same chickens which were left after removing what was needed for the salad, served hot, produced no sickness in those eating them, while the cold chicken eaten by Bridget Cain on Tuesday and the guests on Wednesday produced sickness in all.

It will be remembered that the weather was very warm at the time of this wedding, and every thing was favorable for the growth of bacteria and formation of their poisonous products, the chickens being cooked, shut up in a safe in a warm room, some of the liquor being left upon it. The conditions could not have been rendered more favorable in the laboratory than were here furnished naturally, so it is not surprising that putrefaction commenced in these chickens and, the conditions remaining favorable, continued in the salad.

The points that were suggested and thought to conflict with this view of the case were that the Herr family ate of this chicken on Tuesday without being made sick, and that Drs. Kastenbine and Pope had eaten the chicken from salad a week later with like result, and that it was not eaten at the wedding by two of those who were afterward sick. Again, it is urged that "high" game is eaten constantly without ill effect.

That this chicken was eaten by the Herr family is true, but it was eaten hot and before any putrefactive change could have taken place. This was admitted, and of itself clears the little negro, Jim Drane, of any suspicion of having poisoned the chickens with arsenic while cooking, for this poison would not be affected by such heat. It is also true that chicken from the salad was eaten by Drs. Kastenbine and Pope, but as a poisonous alkaloid may be present on the third day and entirely decomposed



on the eighth, it is evident that they ran no great risk in eating the chicken when they did. Again, when the attention of the gentlemen above referred to was called to the fact that they had soaked the chicken which they afterward ate for some days in alcohol and ether, they acknowledged that these substances would have extracted any ptomaines and killed any bacteria which might have been present. As the substances which were eaten by the two persons who claim to have eaten no salad were eaten by those eleven who were not sick, it is evident that the memory of each of the afore-said two must have been shaken as was the rest of the economy.

The "high" game which is eaten is always well cooked before being served, and I doubt if any one can be found who would care knowingly to indulge in the luxury of game which had become "high" after cooking.

It has been said that if these poisons would develop so quickly we should all have been poisoned long ago. But I will warrant that most readers of this paper will be able to recall cases of sickness due to the ingestion of decomposing meat, milk, or other articles of food, and I think, in view of the facts here presented, there is only one conclusion to make, and that is, that this last distressing affair was the result, not of any especial negligence or maliciousness, but of an unfortunate and unforeseen combination of circumstances brought about by a total lack of knowledge, in those preparing the food for the wedding, of the poisons which may be generated in decomposing organic matter.

Some apology is due to my medical readers for the very simple non-technical manner in which I have considered this subject, but I did not desire to make use of any of the chemical or bacteriological experiments which were conducted by my friend, Dr. H. M. Goodman, and which fully confirm the statements here made. I also found, soon after getting mixed up in this poison business, that my position was violently opposed by not only one or two of my medical brethren, but also my friends in the county, who were confident that they had been maliciously poisoned, or to use a familiar phrase, which is much more appropriate than elegant,

"I was between the devil and the deep, blue sea," so that I have had in this article not only to satisfy his satanic majesty, but also pour a little oil on the troubled waters.

LOUISVILLE.

## HOW SHALL WE OPERATE FOR MAMMARY CANCER, AND WHEN?\*

BY DOUGLAS MORTON, A. M., M. D.

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At a meeting of the Medico-Chirurgical Society last summer I exhibited three mammary tumors I had recently removed, and at a meeting later on another, removed a few days before. More or less interest attached to all these tumors intrinsically; but my purpose this evening is not to discuss the tumors, but the method of their removal. The breasts had been amputated by the old method, leaving the axilla intact, except in one case in which I removed several greatly enlarged axillary glands.

In the discussion that followed most of the members expressed emphatically their preference for the "completed operation." I objected that the "completed operation" is not only far more dangerous than the old one, but in an important sense is incomplete after all. As it is usually done, the axillary glands and some tissue about them are removed. The intervening lymphatic ducts, that may be full of cancer cells, especially at their valves, are at best only partially removed; the alveolar buds that shoot out from every gland from the moment it enters the process of becoming fixed are cut or torn through, causing cancer cells to be scattered over the surface of the wound, soon to become fixed as new foci. Furthermore, the supra- and sub-clavicular glands that in many, perhaps most of the cases become infected sooner or later are in the "completed operation," as it is ordinarily done, left intact; even Gross, a most earnest advocate of this operation, removes these glands only when they are palpably enlarged. I mentioned a case that represents a large proportion of all mammary cancer cases, in which I removed the breast without opening the axilla, some years ago.

\*Read before the Louisville Medico-Chirurgical Society, June 24, 1891.

Two years later I removed enlarged supra- and sub-clavicular glands, the axillary glands having in the mean time enlarged very little—too little to have attracted the patient's notice.

Since the discussion referred to, I have taken pains to examine this subject more thoroughly, and have come to the conclusion that Buttin uses a not too strong expression when he calls the "completed operation" a "surgical blunder."

In order to examine systematically the conditions that bear upon the question of "clearing out" the axilla, all mammary cancer subjects may be divided into four classes: (1) Those in which the disease has not only infected the axillary glands, but by metastasis or otherwise has involved internal tissues and organs; (2) those in which these glands have become infected, but in which the disease has gone no further; (3) those in which metastases have occurred without infection of the glands; (4) those cases in which the disease is as yet limited to the mamma.

It is clear enough that every case belongs to one or the other of these classes, but of course it may be impossible to determine to what class any given case belongs. Practically, however, the doubt in any case must be held as against the operation of opening the axilla. This will become more apparent further on.

The cases of the first class are plainly not operable.

In those of the second, if clearing out the axilla and removing every gland in the whole neighborhood of the diseased breast and the tissue around them as well were to complete the operation as the term implies, it would certainly be justifiable, provided the mortality after this procedure be not too great. As to the pertinency of this "proviso," let us see what the "completed operation" really involves:

“According to Mr. Banks, of Liverpool, one of its oldest and most earnest advocates, the attitude of this innovation in regard to removal of a cancerous mamma is that the integuments are to be sacrificed without heed to the question of covering the wound, that the fascia is always to be dissected from the pectoral muscle with as much fiber of the latter as may be deemed ad-

visible; and whether involved or not the axilla is to be cleared, not merely of glands, but of all its tissues—nerves and vessels excepted—with a completeness equaled only in a dissection for anatomical demonstration.” (R. M. Hodges, Boston Medical and Surgical Journal, November 29, 1888.)

• Dr. Gross, in his admirable paper (*American Journal Medical Sciences*, April, 1888), written, as it appears, much for the purpose of setting forth the advantages of the "completed operation," gives statistics of local recurrences as follows:

Of 409 cases, partial or total extirpation of mamma without glands was done in 96 cases.

Recurrence in or near cicatrix, 46 cases =	47.91 p. ct.
"    cicatrix and glands, 31 cases =	19.74 "
"    glands alone, 19 cases =	32.29 "

Of amputation of breast with removal of glands,  
313 cases.

Recurrence in or near dentrix, 235 cases	= 75.08 per cent.
"    glands alone..... 38 cases	= 12.14 "
"    both places..... 40 cases	= 12.77 "

In connection with this table Dr. Gross says there are two interesting practical facts. In the first place, where the breast and glands are removed, the disease reproduces itself in an average of 6.4 months, while, when the breast alone is extirpated, recurrence follows in 7.7. Secondly, in the former operation, the axillary glands are the seat of recurrence in twenty-five per cent of all cases, while they are affected in fifty-two per cent of the incomplete operations. Hence he concludes, "that by clearing out that cavity in all operations we may naturally expect to diminish if not prevent further local dissemination."

Holding a different view from that of Dr. Gross as to the advisability of clearing out the axilla, I can not reach the same conclusion from these premises. In the first place, it is seen by his own figures that recurrences in glands take place about half as often after the completed operation as after the operation that does not touch the axilla. In the second place, by the same figures, there are over fifty per cent more recurrences in and near the cicatrix after the former than after the latter operation.

These figures, I believe, show the impossibility of doing any operation that deserves to be called "completed" after the invasion of the axilla has taken place. They show too, that



the number of local foci, so far from being diminished, is actually very much increased. These facts, taken with the other very important fact that the immediate mortality after the "completed operation" is double (Buttin) that after the incomplete, seem to utterly condemn the former as a life-saving measure in the class of cases under discussion just here. But will it lessen the suffering of the patient? At first sight it might be supposed that removal of axillary glands would prevent the severe suffering incident to pressure of these glands upon the axillary vein and plexus of nerves; but as matter of fact it simply substitutes a mass of cicatricial tissue for the indurated glands, which certainly causes as much pressure as they do, and in destroying the continuity of the lymph ducts favors rather than otherwise the edema of the arm.

Hodges, in a very able paper, says "Edema of the arm, the worst and most distressing incident of cancer of the breast, rarely fails to accelerate the fatal event. It is more likely to occur when the incision has been extended into the armpit than when the disease has been left to itself." According to Banks (*British Medical Journal*, December 9, 1882), "it is but right that while pleading for an early and free operation one should admit that if it fail thoroughly to cure it does not improve the patient, but makes her decidedly worse."

The third class is made up of cases in which metastatic tumors have occurred, and without antecedent glandular involvement. These are clearly not cases for operation. As to the relative frequency of their occurrence Dr. Gross, in the paper referred to, has given statistics. In one set of 52 cases there were 7 in which metastases had occurred without implication of the glands. In another set, taken from Von Zörök and Wittleshöfer, in which "of 191 cases without glandular involvement metastasis had occurred in 62.3 per cent." Buttin, in his work "On the Operative Treatment of Malignant Diseases," says "the proportion of cases in which the disease appeared in the axilla without recurring in or near the scar was singularly small, scarcely more than three per cent." Thus it is seen that there is a large proportion of cases which, before the develop-

ment of cachexia that always sooner or later follows the infection of internal organs, may seem, on account of absence of glandular implication, especially proper for operation, but which are absolutely unfit for any kind of surgical procedure; and the doubt in regard to these cases must most certainly be held against doing any operation that is attended by a high immediate mortality.

The fourth class embraces those cases in which the cancer is as yet strictly local. By almost universal consensus among pathologists cancer is at first local, and as long as it remains local thoroughly eradicable. Now I think that it has been satisfactorily demonstrated above, that after the axillary glands have once become involved it is at least highly improbable that the disease can be eradicated from this locality by any surgery however thorough; and this truth involves another that is highly probable, that the cases in which cures have followed the "completed operation" were those in which the axilla had never become implicated, and were therefore curable by the minor and far less dangerous operation properly done.

Before proceeding to make a comparison between the percentage of cures after the respective operations, it is but just to Dr. Gross to say the results obtained in his own 43 cases are the best that have been recorded. In these operations there were only two fatal cases, 32.55 per cent of recurrence in and near the cicatrix, and 21.05 per cent of cures.

Of 311 cases given by Buttin, the breast alone was removed in 141, and 12 died of the operation. The breast and glands were removed in 170 cases with an immediate mortality of 39. For comparison of percentage of cures 242 of the whole number are available, 98 in the first set and 144 in the second. Of these, in the first there were 19 cures tested by "the three years limit," and 11 in the second, or 19.5 per cent of cures in cases in which only the breast was removed, and 6.15 per cent in which the breast and glands were removed. Buttin gives another set of cases treated by Dr. Bougard, of Belgium, with caustics. Of 162 cases, 62, or nearly 40 per cent, were free from recurrence three years after treatment. Mr. Buttin was inclined at first to doubt the

accuracy of these figures, but on thorough examination of Dr. Bougard's book became convinced of their genuineness, and was led to believe this unparalleled success to be due to the author's careful selection of cases for treatment.

Bougard's experience indicates the localism of the disease in its early manifestation, and the possibilities of a treatment that does not touch the axilla.

There is a moral aspect that must not be left unconsidered in the discussion of this question. Every woman with a mammary tumor has an indisputable right to a frank and honest statement from the surgeon to whom she applies of the dangers of the operation he may propose and her prospects as to ultimate cure. Let us suppose a woman about forty years old applies to a believer in the "completed operation" with a tumor about the size of a walnut she has just noticed for the first time. He must tell her the tumor is very probably, though not certainly a carcinoma, and that it should be removed at once; that the operation kills about ten per cent of cases; that, if it is done by Gross' peculiar method, she must be under treatment for months if she escapes the immediate danger of the operation, and finally, if she is not radically cured she will be put in a worse condition than before.

I do not believe one woman in a hundred, after getting this information, to which she has a perfect right, would submit to the "completed operation." She would most probably delay the matter till too late for any operation to avail. On the other hand, if the surgeon happens to believe that extirpation of the breast alone, properly done, is the best procedure, he can say, as I firmly believe, there need be no mortality at all after the operation, save that which may come from shock or from the anesthetic; that the patient will recover in a week; and finally, that recurrences, as evidenced by a great mass of statistics, are certainly not more frequent after this than after the other method. There can be no doubt that the effect of a general adoption of the minor operation will be to encourage women to submit to it at the earliest manifestation of the disease, and at the time therefore when her

chances for permanent cure are best. As the case stands now, the subjects of mammary cancer, frightened off by the knife in the hands of the regular surgeon, are flocking to the quacks, who are getting results that, say what we may, are sustaining their business wonderfully well.

In order to give some freshness to this discussion I wrote to a number of prominent men in different parts of this country, asking data obtained in their own experience on two points, namely, the relative frequency of serious axillary complication in mammary cancer; and second, the comparative liability of recurrence of skin epitheliomas after extirpation by the knife and destruction by caustics. The purpose of the second question will be seen further on. Replies were received from most of these gentlemen, and though none contained information available as statistical material on the first point, they nevertheless contained valuable matter. On the second point three important replies were received.

As my paper is meant to be short I can not devote the amount of space I would like to the letters of the gentlemen who have so kindly answered my inquiries, but will endeavor to do them justice.

Maurice Richardson, of Boston, author of a very valuable paper on the surgical treatment of malignant growths, in the *Boston Medical Journal*, August 30 and September 6, 1888, says serious axillary trouble (edema of the arm and severe pain from pressure on branches of the brachial plexus) occurred in not less than half the inoperable cases he had seen. He says, further, "I always dissect out the axilla in every case, and I have never failed yet to find, even in the earliest cases, some infiltration these glands."

Hunter McGuire says, "I am always very careful to remove any *enlarged* glands in the axilla when I operate for cancer." (*Italics mine.*)

H. H. Mendel, of St. Louis, writes that induration (of the axillary gland) "becomes a serious factor in perhaps one third or one fourth of the cases." He says, further, he makes more thorough search for indurated glands than formerly, and rarely fails to find them. When he does find them he dissects out the axilla as completely as possible.



Bache Emmet writes, "I have never seen a recurrence in cases in which I had even felt enlarged glands," and further on, "I have never failed to see recurrence when any enlarged glands were left." He adds this interesting statement: "I have several times found many glands enlarged, and at a subsequent examination, after some months' interval, have been unable to find anything like the same number," and this in undoubted cancer while in active progress.

H. O. Marcy writes, "I am sure the axilla, in the few non-operative cases where I have known the results, has almost without exception become involved," but that "quite a number, where the gland was removed early and thoroughly, have continued well during a considerable number of years, although there could have been little question of the character of the disease."

Conner, of Cincinnati, writes, "I can safely say that in nineteen out of every twenty cases, the axillary glands have been affected and infected."

Ransohoff, of Cincinnati, says, "I believe every lymphatic enlargement in the axilla is serious in mammary carcinoma. I go even further in the conviction that infiltration undiscoverable by palpation is present at an early period of the clinical histories of these cases; on this conviction, I clean out the axilla in every case, irrespective of the presence or absence of enlarged glands."

W. M. Polk says, "All my cases have shown glandular enlargement in the axilla sooner or later; even those operated upon have in the end had recurrence, generally in the lung."

Maury, of Memphis, says, "Out of a dozen cases operated on for cancer of the breast, I have not seen death or serious derangement of health ensue upon axillary involvements." In only three of these cases was the axilla cleaned out. In the other nine no enlargement of the glands was found on careful examination.

Referring to the strong paper against the "completed operation" (*loc. cit.*), R. M. Hodges writes, "I have never had any reason, since it was written, to modify my opinion, except by way of feeling still more strongly its correctness. I have seen in the columns of the Bos-

ton Medical and Surgical Journal, in reports of Society meetings, some evidence, as it seems to me, that those gentlemen in the city who have advocated the so-called completed operation are weakening on their estimate of its safety and justifiability."

Referring again to the statistics of Gross, it will be seen that of 313 amputations of the breast combined with extirpation of the glands, recurrence was met with in 275, or 87.86 per cent. These figures include his own cases, and he states that if they are deducted it will be found that in 94.47 per cent the disease recurred in or near the cicatrix." Now we learn, elsewhere in the paper, that 257 of the 313 cases of "completed operation" included besides his own 43 cases those of Banks and Küster; and these two gentlemen, it must be remembered, are earnest advocates of this operation. The conclusion then is necessary, either that Gross was far more thorough in his work of clearing out the axilla than these other gentlemen, or that his greater success was attributable to some additional modification. It would naturally occur to those who believe in Gross' "dinner-plate" operation that his success was due to his free sacrifice of integument; but this was not his own way of thinking, for after examining Bank's record he says, "I felt as if I had possibly sacrificed too much integument, and I have in four recent cases so far modified my operation, the skin in none being apparently affected, as to save a sufficient amount of that structure to admit of bringing the wound nicely together without tension."

It seems then that we must accept the alternative of Gross' greater thoroughness in clearing out the axilla. Though, as his record is small compared with the combined records of excellent surgeons who are as firm believers as he in the "completed operation," we are inclined rather to the view that he had had an extraordinarily good "run" of cases, in which perhaps the axilla was involved in very few. Certainly the statistics I have quoted go far to verify the statement already made, that where the axillary glands have become infected it is very difficult, if not impossible, to do an operation that deserves to be called "completed."

To my question as to the comparative fre-

quency of recurrence of skin epithelioma after removal by the knife and by caustics, I received a number of replies, several to the effect that the writers had always used the knife exclusively. Among these were Agnew, of Philadelphia, who said, however, that recurrences after the knife in his experience had sometimes taken place in cases of epithelioma on the lower eyelid, near the inner canthus.

Of those that had used caustics, Hunter McGuire said, "I think epithelioma removed by caustics or cautery less apt to return than when taken out with the knife." Ransohoff said, "My experience has led me to value highly the use of caustics in superficial epitheliomas of the face, lips, and external ear." George Henry Fox says that "extensive cases of epithelioma are more liable to return after the knife than after the thorough application of a caustic."

My aim in putting this question was to collect testimony acceptable to the profession as to the correctness of the belief held by some, that cancer cells infiltrating the tissues surrounding an epithelioma are destroyed by the inflammatory process set up by caustics used for the destruction of the growth. I find, however, that very few surgeons have used caustics and still fewer have written on the subject. Bougard, whose cases have been mentioned, and Dr. J. N. Bright, of Lexington, whose very scholarly work on Cancer, Its Classification and Remedies, are all that I know of.

Dr. Bright wrote, *loc. cit.* p. 11, that after using the knife twenty years he became dissatisfied and disheartened, gave it up, and turned his attention to a more thorough research into the nature of cancer and a different mode of treatment. He devotes a chapter to his record of cases treated by caustics, which is certainly excellent. My own experience in the treatment of skin epithelioma by caustics has been very satisfactory. The anatomical facilities, however, for regional infection in the tissue around a mammary cancer are far greater than in the case of skin epithelioma, and the efficiency of caustics in the latter does not imply their efficiency in the former class of growths. I shall therefore, for the present, adhere to the prevalent practice of removing mammary cancer

with the knife, cutting widely of the tumor. In dealing with recurrences, however, about the site of the disease, which usually occur in the skin along the line of the incision, I shall use caustics.

The purpose of this paper is to show that in view of the exceedingly small prospect of effecting a cure by any operation when the disease has extended beyond the tissues immediately about the gland, and of the certainty of doing harm when a permanent cure is not obtained, that no operation is justifiable; but that in cases in which it is reasonable to believe the disease is limited to the gland, the minor operation should be done, for if it is so limited, the minor operation, properly done, will do all that can be done by the major with much less danger to the patient; and should the event show that the disease had not been thus limited, it will not have accomplished less.

The mind of the laity is deeply impressed with the belief that cancer of the breast is not cured by the knife, and victims of this disease, not knowing that the trouble comes rather from its abuse, naturally hesitate and delay when prompt action is of utmost importance; but I firmly believe that when surgeons shall have refrained from injudicious operating the time will soon come when these unfortunate women will fear delay and not the knife. Our records then will be far better.

LOUISVILLE.

### SOME REMARKS ON A VALUABLE ANTISEPTIC PREPARATION.\*

BY ARCH DIXON, M. D.

I wish to call your attention to a new antiseptic and germicide—antisapron—made by the the Antisapron Chemical Company, of this city. The term "antisapron," composed of the Greek words *anti* (against) and *σαπρός* (rotten), implies the indications for its use so plainly that the educated medical man will recognize it at a glance. Antisapron is the essential antiseptic constituents of *Thymus vulgaris*, *Eucalyptus globulus*, *Gaultheria procumbens*, and *Mentha arvensis* in combination, each ounce containing sixteen grains of benzo-sal-

\*Read before the Henderson County Medical Association.



icylic acid. The above constituents will be recognized by the profession at once as the most desirable and efficient antiseptics known. Carefully prepared by a chemical process which eliminates all objectionable ingredients there results a beautiful preparation, antisapron, miscible with water in any degree and representing a reliable non-irritating and non-toxic antiseptic which has no equal. Thymol, the active principle of *Thymus vulgaris*, is an antiseptic more powerful and more permanent than carbolic acid, and without its disagreeable odor. M. Bouillon, a French pharmacist, in searching for a substance with the important practical properties of carbolic acid and without its offensive smell, found such a substance in thymol. Eucalyptol is stimulant, aphrodisiac, antispasmodic, and eminently antiseptic in its action. It is highly recommended in the treatment of septic fevers, chronic gastritis, and intestinal catarrh, chronic bronchitis, etc., but its chief uses depend upon its antiseptic character. Thus it is employed in the treatment of fetid breath, ulcers (syphilitic and otherwise), purulent catarrhal affections of the bladder, urethra and vagina, spongy and bleeding gums, etc. Externally it is largely used as a disinfectant in gangrenous or fetid suppuration, foul ulcers, and offensive discharges of all kinds. Gaultheria (winter-green) is stimulant, aromatic and stringent. It possesses the power of preventing putrefactive fermentation in a high degree, due to the fact that the oil contains salicylate of methyl. Menthol is perhaps the best and most valuable antiseptic for inhalation in acute or infusorial catarrh known to the profession. It is also valuable as germicide in scarlet fever, diphtheria, typhoid fever, etc. The combination of the essential constituents of these antiseptic remedies, with the addition of benzo-salicylic acid (sixteen grains to each ounce), give to the medical world a reliable non-irritating and non-toxic preparation which in the diversity of its uses for antiseptic purposes has no equal. First of all, antisapron is a boon not only to the obstetrician but to the parturient woman as well. By its use we escape the dangers incident to the employment of solutions of bichloride of mercury, carbolic acid, etc., within the parturient canal, while we

obtain results equally as good if not better. All or most of you have met with cases of sapremia, a term introduced by Mathews Duncan. As before, the composition of the words, *sapros* (putrid) and *aima* (blood), implies the condition so named, and is more elegant and equally as expressive as the terms putrid-fever, putrid-intoxication, etc. This condition is most admirably described by Roswell Park in the fourth Mütter lecture, Annals of Surgery, June, 1891, and I can not do better than use his words, "Perhaps the best definition of sapremia can be conveyed by an illustration of the condition itself, and for this purpose none will serve better than that physiological operation of nature's own performance, the act of parturition." By the completion of this operation there is inflicted a fresh and bleeding wound of large area, which is more or less exposed to putrefactive agencies. By the conclusion of this act and the contraction of the uterine walls, there is left a comparatively small cavity which must contain a small amount of freshly coagulated blood. It is unnecessary to speak of what occurs when the puerperal state is passed without incident, but let us suppose that on the third or fourth day the patient is found with a flushed face, dry tongue, some mental disturbance, and a considerable degree of pyrexia, while we are informed that the lochial discharge is altered both in appearance and in odor, the latter being now offensive. Germs of putrefaction which are introduced by carelessness during the act of labor or afterward, have lodged in the blood-clot, have caused putrefactive processes, as the result of which ptomaines have been formed. We have then a condition of putrefying and poisonous blood-clot contained within a mass of tissues in which changes and absorptive processes are rapidly taking place, in other words, within a locality where absorption is highly favored. This condition being recognized, what is the immediate duty of the attending physician? The answer is simple. Irrigate the uterus with an antiseptic solution, repeated at short intervals, if necessary, by which means putrefaction is not only checked but abolished, and the source of poison being removed the natural recuperative powers of the patient enable her to recover

within a few hours from the dose of poison received. Two or three tablespoonfuls of anti-sapron, in a quart of warm water, injected into the uterine cavity, accomplishes the desired object quickly and efficiently, while, as said before, your patient escapes the dangers incident to the use of stronger antiseptics. Every obstetrician of much experience has had more or less trouble, and trouble of a serious nature, to follow upon an intra-uterine douche of corrosive sublimate. 'Tis true you destroy the microbe, but the patient is poisoned by a no less dangerous life-destroyer. Fleischmann reports a case of a primipara, who at the beginning of labor received two vaginal douches of corrosive sublimate (1-2,000) and died on the eighth day with all the symptoms of mercurial poisoning, the diagnosis being confirmed at the autopsy. Stadtfeld, Tomer, Vohtz, Winter, Ruive, Thern, Schwarz, Braum, and Butte have also reported eight fatal cases following the use of corrosive sublimate. Fatal cases as occurring in the practice of Hofmeier, Veit, Partridge, Fraenkel, Tarnier, and Virchow have also been reported. It is not uncommon to have salivation, ulceration, etc., in cases which recover. These cases may be accompanied by high temperature, extreme debility, a profuse, fetid, thin, and often-times bloody diarrhea with tenesmus. The colon is congested; the rectum is the seat of deep, well-defined ulceration; the urine is scanty and albuminous; erythematous patches of varying shapes appear on different parts of the body. In these cases, when salivation has gone on for some time, Dahl, Taikarky, and Prevost have found characteristic lesions of the kidneys similar to those found in animals experimentally poisoned by mercury. It is certain, according to Doleris, that grave results have followed the use of solution as weak as 1-5,000. The same may be said of carbolic acid, though in a lesser degree. Fraenkel, Hofmeier, Volkmann, Bergmann, and Prevost have reported fatal cases following its use. There can be no question of the fact, that anti-sapron will accomplish the same end in these cases as either corrosive sublimate or carbolic acid, and without danger to the patient.

The following cases will illustrate its effi-

ciency: Mrs. H., primipara, aborted on June 3d, at three months; fetus came away without trouble; adherent placenta; uterus curetted. Patient did well till third day; when she had a chill followed by rise of temperature, 103° F.; lochia scanty and offensive. Two ounces of anti-sapron in a pint of water was used as an intra-uterine injection at 9 A. M. Quinia sulph., grs. 10, and morphine sulph., gr.  $\frac{1}{3}$ , were ordered to be taken at once. Seen again at 4 P. M. Temperature normal, lochia scanty but not offensive. Ordered  $\frac{1}{2}$  ounce Rochelle salts. Patient seen next morning and discharged.

The following cases were reported to me by Dr. S. C. Smith: "During the past month I was called to a case of abortion at three and a half months, in which the fetus had been discharged for some ten days, and the decidua and a portion of the placenta had been retained during that period. Putrefaction of these retained products of conception had of course occurred, and the odor was simply terrific! Septic intoxication (toxemia) was manifested by the usual symptoms, but only in the first stages. Before making any attempt to empty the uterus I gave a vaginal injection of a pretty hot solution of anti-sapron, 2 oz. to 6 oz. in hot water, followed by an intra-uterine douche of the same, with Jennison's douche. In ten minutes all the horrible fetid odor had disappeared, and the manipulations afterward used to clear the uterus of the retained products were rendered far more agreeable. In spite of the faithful use of manual means supplemented by the cautious use of the blunt curette, I failed to extract all the placenta, several pieces coming away for several days thereafter; but there was no more odor, and the septic symptoms rapidly disappeared under the daily use of the anti-sapron douche. During the present month (June, 1891) I attended a multipara in labor with her eleventh child. The labor was rather slow, but otherwise normal. The amniotic sac ruptured some twelve hours before contractions occurred, the waters dribbling away gradually until the labor set in. I presume a small rent occurred in the sac pretty high up, enough amniotic fluid remaining to form a considerable pouch in front of the head and facilitate the dilatation of the



os. Very slight pressure over the fundus, after Credé's method, sufficed to deliver a very voluminous but perfectly normal and healthy placenta. Every thing went on smoothly till the fourth day, when the woman had a chill, and temperature went up to 104° F. Clots had been passing, and the after-pains had been unusually severe, requiring hypodermic morphia and atropia several times. I found on this, the fourth day, considerable septic odor also, notwithstanding the previous careful use of antiseptics in the conduct of the labor and the application of the bichloride pad over the vulva and a dose of ergot after the birth of the child. The womb was well contracted also. A couple of intra-uterine douches with Jennison's instrument, preceded by vaginal irrigation, using the antisapron in one-fourth dilution, acted like a charm in removing promptly all odor and all septic trouble. Recovery perfect and uninterrupted after the use of antisapron, 2 oz. to 6 oz. of hot water.

"Some four or five days since, I lanced a large labial abscess in a woman of thirty-five years of age, in which the pus was of a most ichorous and unhealthy character, and having the identical odor of rotten egg, extremely offensive; the sulphuretted hydrogen gas, bubbling out with pus, raised in my mind the suspicion that the abscess cavity might possibly communicate with the rectum. To destroy the insupportable odor I injected the abscess cavity with the antisapron, diluted as before, and was agreeably surprised at the promptness with which it destroyed the odor. Subsequently I injected peroxide hydrogen 15 vol. syl. diluted with one fourth water; it is doing remarkably well, and fortunately there is no communication with the rectum.

"I have used antisapron in my spittoons, and in the test-tubes where stinking urine had remained by neglect, and in other chamber utensils, as a deodorizer and disinfectant, with perfect satisfaction; and have prescribed it in chalk and bismuth mixtures as an antiseptic in summer diarrhea of children, and as a mouth-wash for sore and spongy gums, the result of uncleanness and salivary calculus, and in balanitis, and have obtained in every case satisfactory results."

In vaginitis, either simple or specific, antisapron may be relied upon to do effective work. In minor and other surgical operations I believe it fills a place which no other antiseptic has been able to do. In the treatment of apthous-sore mouth, of ulcerative tonsilitis and of simple catarrhal sore throat, it may be said to be almost a specific; and in diphtheria and scarlet fever, while I have not had the opportunity to test it in these cases, the indications are that, used as a spray over the fauces and in the nasal passages, it will be a valuable addition to our treatment. Its efficacy in all catarrhal affections can not be doubted.

HENDERSON, KY.

## Societies.

### LOUISVILLE SURGICAL SOCIETY.

Stated Meeting, July 20, 1891, D. W. Yandell, M. D.,  
President, in the chair.

Dr. I. N. Bloom read a paper on Extra-Genital Chancres.\*

"In December, 1888, Dr. Yandell referred a patient, Mrs. S., to me. She had been treated for an affection of the nipple which a practitioner had pronounced carcinoma. Dr. Yandell, whom the patient afterward consulted, differed in diagnosis and, as stated, sent her to me for treatment.

"The patient was forty-six years old, had been a widow for five years, lived in good surroundings, was of average intelligence, and impressed both Dr. Y. and myself as being an honest woman.

"Four weeks before a papule had appeared below the left nipple at its junction with the mamma, and this had increased in size without involving the nipple and without ulceration. The whole of the lower half of the areola was an indurated mass about the size of a walnut. The glands of the neck, elbows, and groin were much enlarged. There was no exanthem. The diagnosis of syphilitic sclerosis was made and concurred in by Dr. Yandell, and confirmed a few days after by a papulo-pustular outbreak, which in time covered the whole body. Under

The full text of this paper was published in the Medical Progress, June, 1891.

specific treatment the induration disappeared in a very few weeks. I have seen the patient since, and she has had the usual accompaniments of *lues venerea*.

"In this case the most earnest search failed to discover the source of infection; inquiry was made in every direction that could throw any light upon it, and the patient, to whom every thing had been frankly stated, assisted by suggestion as much as possible.

"In March of the following year a gentleman well known in this city brought his daughter to my office, a young lady about twenty-two years of age. On the right *angulus oris* was an indurated sore about as large a marble, with its contour broken by a fissure running half way through it. This, too, had begun about four weeks before. The cervical glands were enormously enlarged and but slightly sensitive. No others were appreciably affected. When the drift of my questions was perceived by the father he sent his daughter out of the room and told me that the diagnosis had already been made by a well-known and very able physician of this city. The young lady was the betrothed of a man who was at that time under treatment of a local physician for syphilis acquired some months before. The mucous patches of the latter were undoubtedly the source of direct infection. As my services had been employed simply as confirmatory of the family physician's diagnosis (I was ignorant of this when I first saw the patient) I did not see the patient again, but learned from her physician that she developed the usual characteristic symptoms.

"About three months ago I showed a patient to the Clinical Society of this city, a young man, twenty-two years of age, referred to me by Dr. Vance, who had correctly diagnosed the case. On the proximal joint of the left index finger inner aspect was a sore, roughly ellipsoid in outline, with diameters of three quarters and one half inch respectively. It was elevated, the edges sharply defined, and ulcerated on its whole surface. There was little or no induration. It had begun a month before. The cubital glands and those of the neck were enlarged, especially the cubital gland of the left arm. In a few weeks and at the time of presentation to the Society a maculo-papular erup-

tion covered the trunk and extremities, scabby sores appeared on the hand and the adenitis became general. Since then mucous patches have appeared on the tonsils and uvula. Mercury caused a cleaning up of the initial lesion, healthy granulations and cicatrization following quickly.

"On the 8th of last September a patient, Mr. W., twenty-two years old, whom I had treated for acne indurata for several months, came to consult me about a case of gonorrhea, the symptoms of which had just appeared. He had been to a neighboring city, where for the first time in many months he had had sexual intercourse. This he kept up several times a night for a week, drinking freely night and day. The appearances were those of an acute gonorrhea. I made no tests for gonococci. In the third week there was slight posterior urethritis for a few days, after which the symptoms subsided, the discharge ceased, and the urine became clear. On the 6th of November, previous to his departure on a business journey, the flow had ceased, a slight left inguinal adenitis had subsided, and the patient seemed perfectly well. On the last of December he returned to continue his treatment for acne. On examining his face I saw at the junction of forehead and scalp a large papular syphilide; in his hair were scabby sores, and the cervical glands much enlarged.

"On questioning him he informed me that on his body a new eruption had appeared unlike any thing he had ever had before. These on examination proved to constitute a large lenticular syphilide affecting the trunk and extremities. While uniform in size they were larger than any similar eruption I ever saw and were peculiar in that they were sharply contoured. They were without scales. During the time which I had him under treatment for pseudo-gonorrhea up to this time (four months) he had had no sexual congress. I place implicit confidence in this statement. He had never previously had any venereal trouble. A week or so after this examination I sent the patient to Dr. Turner Anderson, who agreed in my diagnosis of syphilis, although no initial lesion or trace or history of the same could be discovered. Later, in January, mucous patches de-



veloped on the tonsils and soft palate, tending to confirm the diagnosis of syphilis. Since this case came under my observation Gruenfeld has reported several cases of chancre of the deeper urethra; and I am satisfied that had I used an endoscope I should have discovered the primary lesion in the urethra anterior to the external sphincter muscle of the bladder.

"Mr. D. presented himself last February. He is a young man, twenty-six years old, and had been under another physician's treatment for stricture. The meatus had been cut some six weeks before and slow dilatation resorted to. This physician having gone to Europe, he came to me on account of painful and difficult micturition. He was of the commercial-traveler temperament, had indulged freely in promiscuous sexual intercourse before and during his treatment for stricture.

"Examination showed at the meatus (the patient had been circumcised ritually) an indurated translucent ring encircling and diminishing the caliber and extending about one fourth of an inch into the urethra. It was not sensitive, except where the incision had been made in performing meatotomy. This had either not healed or else a fissure had formed afterward, and was the source of the pain on urination.

"The inguinal glands on both sides were much enlarged, as were the cubital and cervical glands. There was no eruption. I told him to be on the lookout, and in less than a week he returned with a maculo-papular syphilide which literally covered him, trunk, extremities, palms, soles, and face.

"The evenness and uniformity of the ring at the margin of the meatus and its jelly-like translucency, due probably to the anemia of the infiltrated chancre, is the cause of its special mention here.

"On the 6th of this month B. L., an eighteen year old prostitute, came to my office with a well-defined chancre of the upper lip, directly in its center at the junction of the mucous membrane with the true skin. It was almost a semi-sphere, with a diameter of about a quarter of an inch, elevated, indurated, and slightly ulcerated, but now secreting, as a thin crust covered the central ulcerated part. It had first

shown itself to the patient 'about' five weeks before, and she came to me only because there was a 'lump in the neck which interfered with her swallowing.'

"This 'lump' was found to be an immensely enlarged lymphatic gland below the angle of the jaw on the right side. Other cervical glands were enlarged, but none elsewhere; no exanthem.

"As the patient had been a public woman two years by her own confession and claimed to be ignorant as to the mode of infection, it was useless to push inquiries further. I have not seen her since.

"Besides the cases enumerated above two cases of chancre of the finger in medical men came under my observation. Both were contracted about the same time and in our City Hospital. In the one case the initial lesion appeared in the index finger of the left hand, in the other on the thumb of the right. Both were indurated, elevated, and followed by the usual sequelæ of the disease. In each case the physician made his own diagnosis, and I simply ratified it. With the abundance of syphilitic material in our hospitals at that time it was impossible for either to give a probable source of infection.

"These cases are not given to throw any new light on extra-genital or other chancres, but simply to show their relative frequency; they have all occurred in private practice in a space of a little more than three years. In none of them was the diagnosis difficult when all the facts were carefully noted."

#### DISCUSSION.

Dr. E. R. Palmer said that Taylor, of New York, had recently published an article on this subject in the *Journal of Genito-urinary and Cutaneous Diseases*. He had seen quite a number of extra-genital chancres, probably a half dozen of the lip, and contrary to the experience of Dr. Bloom the lower lip was usually the one involved. In 1884 a merchant applied to the speaker to have his first phalanx, right index finger, amputated for necrosis following a felon. The amputation was done, the wound healed very slowly, and syphilitic roseola shortly developed. The patient then stated that while

intoxicated one night he had taken a street-walker to his room, and being too full for ordinary indulgence used his finger, the sore developing in due process of time. Two months ago a prostitute presented with a syphilitic sore mouth stating that she had never had any other manifestations. A month later her lover presented himself with the cicatrix of a chancre on his tongue, his mouth and fauces covered with mucous patches and no signs of disease elsewhere. In 1880 he was called at night to see a sick child. Made a diagnosis of thrash. His attention was incidentally called to the child's nurse, who had a well-marked macular syphilide. On speaking to her about it she replied that her cousin was a doctor, and that she would go to him. A few days later the mother brought the baby to his office; the child was plainly syphilitic and the mother had a large indurated chancre of the left nipple. Subsequently the husband contracted the disease from a specific erosion of the cervix uteri. His was a chancre of the penis, while the oldest boy, aged about nine years, also became syphilitic at about the same time. The source of infection in the latter case was never located. The nurse-girl died within a year of brain syphilis (a sudden paralysis), and each of the other cases was of an exceedingly obstinate type, the mother being now a syphilitic paralytic. As far as urethral sores are concerned it has been his experience, which accords with book doctrines, that such sores are nearly always true chancres.

Dr. W. O. Roberts had seen five cases. One in a saloon-keeper, who had a chancre of the finger. It came from hitting a man in the mouth. The second a lady in a doctor's office. The lower lip was affected. A man had lip chancre from putting a pen in his mouth that a male stenographer had used. A surgeon removed the tongue. General syphilis followed. In a case of so-called cancer of the lip general syphilis followed.

Dr. H. H. Grant saw a young servant girl who had been under treatment for epithelioma of the lip. She had enlarged lymphatic glands. She had a married sweetheart, but gave no further history. Gave green iodide and cured the case.

Dr. John G. Cecil saw, in the Eye Clinic of the University of Louisville, a chancre of the upper eyelid. No history.

Dr. T. H. Bullock: I once saw a case of chancre on the scrotum, anterior. I treated it for chancroid, but an eruption appeared. He had seen a number of chancres on the lips and fingers.

Dr. Wm. Cheatham had seen chancre on the eyelid. A mother got it from a child who had a sore mouth.

Dr. Vance had seen a chancre on the finger, which resulted from amorous titillation. He had also seen gumma on the finger and another upon the septum narium of a trained nurse, who had taken the disease in the discharge of her duties. Necrosis had come on in seven months.

Dr. W. L. Rodman had seen three cases only. One on the lip of a girl from kissing her lover. The second in a doctor, the knuckle being the seat. The third case had been sent for epithelioma of the lip to Dr. Pusey. Secondary symptoms appeared in due time.

Dr. Yandell: In private work had seen but few cases of extra-genital chancre, perhaps a dozen. A child had got the disease from the nurse and infected the mother. Three doctors had contracted it by vaginal examinations. Four patients had chancre of the lip, the upper lip being always the one involved.

Dr. Bloom, closing the discussion, said: In Europe such cases are quite common. Physicians extracting foreign bodies from the eye with the tongue are often infected. Chancre on the scrotum is very rare. Mucous patches are common. In my lip cases the upper lip has always been involved. I don't know any reason for this. Urethral chancres give no external signs. Bestial chancres are very rare in this country.

Dr. Chenoweth showed a pathological specimen. It was an enormous traumatic aneurism of the femoral artery. There was an exceedingly small opening into the sac. The femoral was small. Leg on affected side measured 24½ inches; other, 17. No hemorrhage. The vessel was tied above and below. It had been twenty-five years in forming. It followed a gunshot wound.



## DISCUSSION.

Dr. W. O. Roberts had seen several cases of aneurism of the femoral. He recalled three. In the first the tumor was about the size of the fist. The sac ruptured, and the aneurism became diffused. The vessel was pulseless. He operated, turning out the clots. The only case he ever saw recover was one of aneurismal varix. In one case he noted that several branches came off from the sac. The long time (fifteen years) that elapsed in Dr. Chenoweth's case before a diagnosis was made shows that the tumor must have developed slowly from a small break in the artery.

Dr. Ap Morgan Vance had, a year ago, reported the case of a man who was wounded in the thigh by a thirty-eight caliber ball. It entered below the anterior superior spinous process of the ilium and found exit through the ischium. The patient had hectic and soon showed a tumor in the left thigh. Upon the supposition that it was a sub-fascial abscess he made a free opening. Before getting into the sac he saw what it was and succeeded in ligating the vessel above and below the opening. This was an inch below Poupart's ligament. With the hand he cleaned out all clots. The patient got well. The delay in operating had given time for the establishment of collateral circulation.

Dr. John G. Cecil: Once saw a painful inguinal enlargement in a woman. A correct diagnosis was not made. He thought it an ovarian growth. When stripped the patient complained of intense pain. The enlargement increased. Syncope and death soon followed. Autopsy showed aneurism of the aorta beginning below diaphragm. All the blood was behind the peritoneum, behind the kidney, and pressed down to the crest of the ileum.

JOHN G. CECIL, M. D.,  
*Secretary.*

## Correspondence.

## LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Since that very clean and pleasant vehicle, vaseline, has come into use it has been largely employed in the preparation of ointments in place of the far less agreeable lard. But the question has arisen whether absorption into the skin takes place in the same manner with two such different agents, and this inquiry has formed the subject of certain experiments upon animals which are described in a French medical paper. By mixing lard with a given salt having strongly marked effects upon animals, and applying such a preparation to the shaved skin of a dog's head, it was found that the expected effects of the drug manifested themselves within a short time after application. But when the same experiment was repeated with an ointment of similar strength, but made with vaseline as a vehicle in lieu of lard, the drug employed had no effect whatever. The authors of these experiments conclude that with vaseline ointments no absorption takes place if the skin be intact.

The volume of 324 pages issued by the Local Government Board illustrates the modern treatment of epidemic diseases. It is a report with illustrative maps and diagrams on the influenza epidemic of 1889 and 1890. The report has been prepared by Dr. Parsons, and it is described in an introduction by Dr. Buchanan, the Medical Officer of the Board, as "a worthy addition to the excellent monographs on influenza that have been contributed to medical literature." From the publication it appears that the deaths attributed to influenza, which were 4,881 in 1847 and 7,963 in 1848, fell off to 1,611 in 1849, and, thereafter, with some fluctuations, such as a rise to 2,152 in 1851, and to 3,568 in 1855, decreased till they were only 92 in 1888 and 55 in 1889. Dr. Parsons' report traces the epidemic literally all round the world. He concludes that it traveled from east to west in the Northern Hemisphere and from south to north in the Southern Hemisphere, that it has followed the lines of human intercourse, not traveling faster than human

SCANZONI, the distinguished obstetrician and gynecologist, died recently, aged seventy years. He succeeded Kievisch as professor of obstetrics at Würzburg, a position that he occupied for thirty-seven years. He was the author of numerous important works in obstetrics and gynecology.

beings, parcels and letters, that it has prevailed independently of season, climate and weather, that it is mild and occurs in scattered places at first and then becomes worse, and that its progress over the globe has been more rapid than that of previous epidemics. Dr. Buchanan denies that it is either Russian or Chinese in origin, and he points out that Dr. Parsons has accumulated such abundant evidence as to leave no room for doubt that influenza is "an eminently infectious complaint, communicable in the ordinary personal relations of individuals one with another." But Dr. Buchanan further says that "from what we have thus far seen of the specialties of influenza, we can not feel particularly confident of our ability under existing conditions of society to successfully defend ourselves against a further outbreak." The recrudescence of the epidemic this year seems to have been similar to that of 1848 after 1847. The deaths in 1848 were more than half as many again as in 1847. So in 1891 there were 319 deaths from influenza in London in the week ending the 23d of May, the largest number in any week in 1890 being 137 in the week ending January the 19th. It propagated itself in the same way as before, only it started from London in 1890 and from Hull in 1891. As to the mode in which the influenza spreads, all the additional evidence confirms the conclusion at which Dr. Parsons has arrived, that it is infectious. "Generally speaking," says Dr. Bruce Low, writing about Lincolnshire and Yorkshire, "places where people have congregated, breathing the same air, have diffused the disease, the sick or convalescent yielding the contagion to the air afterward breathed by the healthy." Medical men and their families have suffered in great proportion. Nurses, too, have been frequently attacked, and country clergymen have carried home the infection from visits to the sick.

Experts in military surgery have recently discussed the likely result in killed and wounded of any future European war. The fact that England, France, Germany, Austria, and Switzerland have already adopted rifles of small caliber, with corresponding smaller projectiles of hard metal, and that Russia and Italy

are about to adopt similar weapons, surgeons are anxious to know what will be the nature of the wounds inflicted. How will they differ from those previously caused by the large, soft metal bullets, which soon expanded and broke up upon impact, carrying often into the wounds fragments of clothing, tearing the vessels, causing comminuted fractures of the bones, the injuries being followed by long-continued suppurations, and conditions being set up that often led to death or sacrifice of limbs. The deductions made up to the present from the results of trials with the Lebel rifle at various distances appear to be, that while the proportion of deaths on the battle-field will be greatly reduced, one may confidently expect that the number of men wounded and put *hors de combat* in any future war between European Powers will be much greater than has ever before been experienced, and that, therefore, the duties of medical officers in the field, and the calls upon the ambulance staff will be many-fold increased, at any rate this is the opinion of many of the staff of the Netley Army Medical School.

Dr. H. J. Hardwicke, Surgeon to the Sheffield Public Hospital for Skin Diseases, and Ear and Throat Hospital, who has studied for twenty years the treatment of cancer and lupus, believes that he can now cure diseases without resorting to the surgeon's knife. He says he has been in communication with Professor von Moretz, and finds that his system is similar to the one announced by that gentleman to the Society of Physicians at Vienna. Dr. Hardwicke has, it is stated, hitherto, for various reasons, refrained from publicly explaining his treatment: but having now almost brought his method to a state of perfection, he is said to be anxious and willing to place the details before such of his medical brethren as express to him any desire to be acquainted with them. With this object in view he has invited would-be inquirers to visit a selected number of cases now under treatment and carefully examine them, and also to examine a number of persons who have been cured during the past eighteen years.

Sir Morell Mackenzie has published an article on the "New Yachting," under which des-



ignation he describes a voyage to the Crimea in the Orient steamer, Chimborazo. Calls at Algiers, Syracuse, Athens, and Constantinople were included in the trip, which seems to have been eminently enjoyable. Sir Morell sums up in a single sentence the desirability of such excursions, which furnish the great benefit of repose in a pure atmosphere with constant change of scene: "In a well-appointed ship man is in ideal sanitary surroundings, where bacilli cease from troubling, and the drain-afflicted householder is or ought to be at rest."

Sir Michael Hicks-Beach has reconsidered his answer to the request made by the Executive Committee of the British Institute of Preventive Medicine, and has now granted the required license to register the institution as a limited liability company, with the omission of the word, "limited." The license, however, is not to be construed as expressing approval by the President of the Board of Trade of experiments on animals, or in any way affecting the exercise by the Secretary of State of his discretionary powers to grant a vivisection license to the proposed institution. It is stated that the articles of association have been signed, that the institution is now duly registered, and that among those who have expressed their willingness to serve on the Council are Sir Joseph Lister (chairman), Mr. Watson Cheyne, Professor Michael Foster, Professor Victor Horsley, Sir Henry Roscoe, Professor Burdon-Sanderson, and Dr. Pye-Smith.

At the close of the sixty-second session of the Army Medical School at Netley Hospital it was announced that Sir Thomas Longmore is about to retire and vacate the position of Professor of Military Surgery.

The Committee of the Virchow Testimonial Fund have determined to present the Professor with an illuminated address upon the occasion of his birthday.

LONDON, August, 1891.

## Abstracts and Selections.

**A STUDY OF ERGOT.**—In the Johns Hopkins Laboratory Dr. John C. Hemmeter, of Baltimore, Md., made an elaborate series of experiments, the objects of which were:

1. To determine whether the contractions of the uterus by ergot are of centric or peripheral origin.

2. Whether the peristalsis of the intestines is increased or diminished by ergot. If increased, whether this be due to a centric or peripheral action of ergot.

3. Whether the cause of the contraction of the blood-vessels in the omentum is central or peripheral.

4. Whether ergot produces a rise or a fall of blood pressure. Whatever change occurs, is it due to an action on the heart and arteries or on the spinal cord?

5. The action of ergot on temperature.

Dr. Hemmeter says: "In no department of experimental therapeutics do we meet with such manifold and contradictory results, or with more widely digressing theories than those concerning the action of ergot. This is especially true in the investigations that have hitherto been made relating to the nature and cause of the contraction of the pregnant and non-pregnant uterus which is produced by this drug. Up to the present time it has not been established whether the action of ergot in this case is a peripheral or central one; that is, whether ergot acts by innervating the uterus through the spinal cord, or directly on the muscular fiber of the organ."

H. C. Wood admits the uncertainty, but thinks that the drift of present evidence is toward peripheral action.

T. Lauder Brunton intimates that ergot possibly acts like ammonia, producing contraction of the uterus after all nervous connections have been divided, but gives no experimental evidence for deciding the point.

Ro-enbach is inclined to accept a direct and local action of ergot upon the muscular tissue of the uterus, indirectly causing contraction by bringing on acute anemia of the organ.

These contradictory statements may be partly explained by the fact that the uteri of different animals vary greatly with regard to their irritability and to the manner in which they respond to stimulations by general contractions. A part of the discrepancies in the opinion of the investigators mentioned might be explained by the fact that the quality and efficacy of ergot and of its preparations obtainable in pharmacies vary greatly.

As the watery infusion of fresh ergot (this

SIR PRESCOTT HEWITT, the distinguished English surgeon, died recently, aged seventy-seven years.

having been used by former investigators) was found to undergo changes very rapidly. I concluded to resort to the fluid extract of ergot, but found this, as obtained from various sources, very variable both in physical properties and therapeutic efficacy, some of the specimens having a very offensive odor. In two German preparations of ergotin and one of liquid ergotin prepared in Basle, Switzerland, and specially recommended by the manufacturer for hypodermic use, a very unpleasant fetid odor, reminding of decomposed organic matter, was noticeable, and the last named, used hypodermically, proved very irritating, causing an abscess in a patient suffering from goitre.

Some of the secondary results in the experiments upon animals were caused by the impurities of the ergot used.

My attention was at last called to a form of liquid ergotin made in Baltimore by Sharp & Dohme, which gave evidences of being a standard preparation both in clinical and experimental application. I have had some of this ergot in my possession for nearly ten months (since February 3, 1890). It has deposited no sediment, has a fresh, pure odor, and is very effective. This ergotin solution, which is probably the most concentrated liquid preparation of ergot that can be obtained, has since become known under the name of ergotole, to distinguish it from the numerous and widely differing preparations sold under the name of ergotin. In my experiments this form of ergot was used, together with two forms of fluid extract of ergot, the official containing hydrochloric acid, the other no acid, which, however, were more bulky.

After the injection of 1 cubic centimeter of fluid extract of ergot (about sixteen minims), the capillaries and arterioles in the omentum of a large rabbit could be seen to contract within from five to eight minutes, and the uterus showed peristaltic contractions. On the other hand, 0.25 cubic centimeter (four minims) of the liquid ergot just described produced the same effect on the arterioles in from two to three minutes (rarely five minutes), and the contractions of the uterus were more active, and followed each other with greater rapidity. The ergot in both cases was diluted with the same quantity of distilled water, and injected into the jugular vein in preference to the hypodermic method, as the absorption of solutions of ergot from beneath the skin in animals is very slow.

I began my experiments by first curarizing the animal (rabbit), and then isolated the uterus from all nervous connections by destroying the spinal cord from the tenth dorsal vertebra to the cauda equina by running a white-hot cop-

per wire down the vertebral canal. Experiments on animals thus prepared led to the following conclusions:

Ergot, in producing contractions of the uterus, acts primarily and essentially upon the lumbar cord, that is its action in causing peristalsis of the uterus is centric, not peripheral.

Ergot, in producing intestinal peristalsis, acts directly on the cord, and only reflexly upon the intestines, its action in this case too being centric, not peripheral.

Ergot produces constriction of the arterioles and capillaries in the omentum and ear of rabbits and in the frog's web as long as the cord and the vagi are intact. These being destroyed, constriction is no longer produced by the drug. Its action in this case is centric, not peripheral.

Ergot reduces the number of pulse beats per minute.

In the isolated frog's heart it reduces the force of the contractions.

It exerts a local poisonous influence on the heart of the batrachian, as well as on that of the mammal, when injected into the jugular vein.

Its main action, however, is exercised through the influence of the central nervous system.

It raises arterial pressure when injected into the jugular vein of mammals. The rise is preceded by a preliminary depression due to the local action on the heart.

It is impossible at present to decide whether this local action is due to an influence on the heart muscle or on the cardiac ganglia.

It lowers temperature by reducing the number, force, and tonicities of the cardiac contractions, consequent upon which is less of tour in the general circulation, with its attendant reduction of oxidation processes.

The therapeutic effects of few drugs correspond so closely with their physiological action as do those of ergot.

The theory of its action is based upon the artificial anemia which it induces in the arterial vessels, so that the histological process of inflammation is impeded.

The power of ergot to reduce temperature, the number of pulse beats, the number of respirations, and at the same time maintain increased arterial pressure, makes it a most important agent in the management of the first stage of pneumonia and bronchitis.

We believe that ergot exercises a very decided effect upon the pulmonary vessels.

Transudation has been proved by a very large number of observers to depend mainly upon the permeability and elastic distensibility of the blood-vessels.

If transudation is associated with increased



heart's action, we know that ergot reduces the number of heart-beats.

If the beginning of pneumonic exudation is associated with hurried breathing, we know that ergot reduces the number of respirations per minute.

If transudation is connected with fever, we know that ergot reduces temperature.

If the fever in inflammatory exudations lowers blood pressure, we know that ergot raises it.

All of these physiological effects directly counteract the main features of the pathological process, and check further transudation, while the lymphatics carry away the exudation that has already occurred.

Upon the power of ergot to constrict the arterioles and to cause arterial and capillary anemia depends its application in a large number of diseased conditions. It has been successfully used in hemoptysis, hematemesis, epistaxis, hemorrhage from the gums; renal, hemorrhoidal, and vesical hemorrhage; in the bleeding caused by carcinoma, dysentery, mitral regurgitation, aortic insufficiency, dilatation of the heart, goitre, meningitis, epilepsy, locomotor ataxia, hemiparesis, and diabetes mellitus.—*New Orleans Medical and Surgical Journal*.

ON MODERN METHODS OF DIAGNOSIS IN GASTRIC AFFECTIONS. — Of late years many new procedures have been introduced with the object of improving our methods of diagnosis in gastric affections by direct analysis of the gastric juice, and of thus enabling us, by the light of more exact knowledge of the morbid process, to interfere with greater precision and success. The methods employed—which, roughly speaking, consist in the withdrawal of a portion of the stomach contents during various stages of digestion without risk or undue discomfort to the patient, and subsequent analysis of them by special tests—have already materially added to our knowledge of the processes that normally take place in gastric digestion and of their pathological derangements. To be useful in ordinary clinical work the tests employed must be capable of easy application, and be at the same time fairly accurate. The object of the present paper is to show that by the selection and application of the more important and trustworthy of the tests devised valuable aid in diagnosis and treatment may be obtained without the expenditure of much time or labor, and that these tests may be carried out in ordinary out-patient work. Under such conditions the more elaborate procedures are hardly possible.

By the labors of Ewald, Boas, Von Jaksch, Mathien, and others it has been conclusively determined that hydrochloric acid is the essen-

tial acid of the gastric juice. It is not, however, secreted at once on the ingestion of food; for at the commencement of digestion, during a period which varies between twenty and fifty minutes, lactic acid is the only acid present, probably derived partly from the meat and partly from the carbo-hydrates of the food. Then hydrochloric acid appears, and both acids are present together for a time, the lactic acid disappearing at from sixty to ninety minutes after ingestion of food. Hydrochloric should be the only acid present at from ninety minutes to two hours, and digestion is then most actively proceeding. It disappears when the stomach contents pass into the duodenum, and is not found in the stomach in the intervals between meals. Moreover, its secretion varies with the kind of food ingested. The presence of carbo-hydrates in excess retards its appearance. On a mixed diet it should be found at the end of from thirty to fifty minutes after a meal, and after a meal of cooked albumen only (for example, white of egg) it sometimes appears as early as fifteen minutes. In every case hydrochloric acid should be the only one present at the end of ninety minutes, and the activity of the gastric juice is in close proportion to the amount of it secreted. The method of procedure which I have found capable of being carried out in a reasonably short time, and from which we may obtain a fair knowledge of the events taking place during gastric digestion, is the following:

The patient should take a "test meal," which may consist of a little weak tea and bread and butter, with or without an egg. Milk is not to be recommended, as it has the property of forming compounds with hydrochloric acid. A soft India-rubber nasal tube is then passed, either through the mouth or through the nose, into the stomach. With the palm of the hand pressure is made over the patient's stomach, and he is directed to cough. It is most convenient that he should be lying down, with his head turned to one side. After coughing a few times, a little of the gastric juice flows out of the end of the tube, and is collected in a flask. In cases where there is vomiting after meals, the vomit may sometimes be used for analysis. The fluid thus obtained is filtered, the deposit examined under the microscope, and the acidity of the filtrate determined. Prof. V. Jaksch thinks it is better to use the unfiltered gastric contents, as he found some loss of acidity took place during filtration. To determine the acidity, 10 cubic centimeters of the filtered gastric contents are taken; two or three drops of phenol-phthalein, which strikes a lively red color in the presence of free alkali, added, and then a decinormal solution of sodium hydrate run in from

a burette. 1 cubic centimeter of the latter neutralizes .00364 gram pure hydrochloric acid. While the decinormal solution is added the fluid must be constantly stirred, and when the red color appears the number of cubic centimeters of the deci-normal solution used is read off, and the total acidity thus calculated in terms of hydrochloric acid. Next we test for hydrochloric, lactic, and butyric acids.

The presence of hydrochloric acid can be determined by several color reactions. Those that seem most reliable, and the only ones with which I am personally acquainted, are Günzburg's phloro-glucin test, the tropeolin, Congo red, and benzo purpurin 6 B tests. Of these I no longer use tropeolin, as it is not so delicate as the others. Test papers may be made by soaking strips of filter paper in saturated solutions of Congo red and benzo-purpurin 6 B. Hydrochloric acid gives a blackish-blue or blue coloration with Congo red. It is open to the fallacy that the organic acids, if present in any quantity, give also a deep brownish-black coloration, difficult to distinguish from that due to hydrochloric acid; but, so far as I have observed, this has never the blue tinge of the latter reaction. With benzo-purpurin 6 B hydrochloric acid gives a dark or light violet color, according to the amount present. The organic acids here also give a brownish-black color, which, however, may be dispelled by shaking up the paper in a test-tube with sulphuric ether (which must not itself be acid), whereas the coloration due to hydrochloric acid is unaffected. The presence of peptone, serum albumin, or acid salts is said not to interfere with this reaction, while they certainly do hinder that of Congo red. Günzburg's reagent is composed of 2 grams phloro-glucin and 1 gram vanillin in 100 parts absolute alcohol. In using it, a few drops of the gastric juice and an equal quantity of the reagent are put in a porcelain dish and gently heated over a spirit-lamp. As evaporation takes place, a beautiful rosy red color appears on the dish. Care must be taken that overheating or charring of the mixture does not occur, as in that case the reaction does not appear. This test is very delicate, giving the reaction with  $\frac{1}{20}$  hydrochloric acid in 1,000 parts, and seems the most trustworthy if a little care is exercised in carrying it out. The reaction is not interfered with by the presence of peptone, albumin, or acid salts. Inorganic salts and chloride of calcium, two per cent, will give the same reaction, but are never present in sufficient quantities in the gastric juice. The only practical source of error, according to Günzburg, is that very rarely lactate or acetate of soda may be present in sufficient quantity to lead to confusion.

Before testing for hydrochloric, the lactic acid present may be removed by agitating the gastric juice with ether, subsequently decanting off the ether, evaporating it, and dissolving the residue in water. Uffelmann's reagent is a distinguishing test. It must be freshly made by adding one drop of liq. ferri perchloridi to a mixture of 10 cubic centimeters of a four-per-cent solution of carbolic acid and 20 cubic centimeters of distilled water. This gives an amethyst blue liquid, which is bleached upon the addition of hydrochloric, turned yellow by lactic, and ashen gray by butyric acid. Butyric acid is also detected by its characteristic odor.

The question further comes in as to whether the acidity is due mainly to free acid, to acid salts, or to acids in organic combination. Leo has devised a means of determining whether the acidity is due to free acid or to acid salts, which depends upon the fact that dry calcium carbonate fully neutralizes free acids, but does not decompose acid phosphates. The method is thus described by Prof. D. J. Hamilton:

"A little of the liquid (a few drops) is placed in a watch glass; a pinch of powdered calcium carbonate is added, and mixed with a glass rod. The reaction is then taken with blue litmus paper, and compared with that of the original liquid. If the litmus is not colored red, we have to do with free acid only; if the reddening of the litmus has become less intense than in the original liquid, free acids and acid salts have been simultaneously present; and if the reaction does not change, acid salts have been the exclusive source of the acidity."

Lastly, the gastric contents may be tested for the presence of peptones, propeptone, albumen, and sugar. Small cubes of boiled white of egg may be placed in the gastric juice and kept at the body temperature, in order to test the digestive power. If it is found to be deficient, pepsin, hydrochloric acid, or pep-in and hydrochloric acid may be added to fresh portions with white of egg, and the digestive agent in default thus determined. The quantitative estimation of hydrochloric acid is too long and difficult a process to be useful for ordinary clinical work. Rough quantitative estimations according to the degree of coloration with the above reagents have been devised, but are not sufficiently accurate to be of value. With a little practice the above tests, though they seem long when described, can be carried out in a reasonable time. The whole process may be summed up thus:

1. A portion of the gastric contents is removed two hours after a meal and filtered.
2. The total acidity of the filtrate is estimated, and it is determined whether the acid-



ity is due to free acid, acid salts, or both combined.

3. The presence of hydrochloric acid is shown by benzo-purpurin and Günzburg's reagent.

4. Lactic and butyric acids tested for by Uffelmann's reagent, by odor, etc.

5. Determination of digestive potency of the gastric juice.

Mathieu has recently made some interesting observations on the determination of the total acidity of the gastric contents by means of phenol-phthalein and by another body (tournesol), which also shows a change of color in presence of free alkali. Phenol-phthalein always shows an excess of acidity over tournesol, due to the fact that peptone, acid albumen, and leucin act upon it, while they do not affect the latter. Organic acids also show the same difference, and this difference between the two acidities is augmented in direct proportion to the total acidity. He concludes that the difference in acidity is not due to azotized bodies alone, and that the organic acids not only exist in free state, but also in combination. Hayem and Winter (quoted by Mathieu), from the result of their investigations upon the gastric contents, are of opinion that the changes produced in the food by the gastric juice are preparatory to those that take place in the intestine, rather than of intrinsic importance in themselves; that the stomach restrains and moderates fermentative processes, and that the quantity of peptone produced is of secondary importance.

While investigating the chemical changes we must not forget the very important part played by the motor functions of the stomach, and we should complete our studies by determining the time after a meal at which the viscus empties itself. This should take place within five or six hours after a meal. There are variations within the limits of health, but longer than six hours is probably always pathological. Fermentative changes, with the development of lactic and butyric acids, then take place, and after seven hours these are the only changes that occur. In cases of undue retention the stomach undergoes dilatation, and this can be satisfactorily determined by palpation, which gives a succussion splash over the stomach area, and its limits can with a little care and practice be thus accurately defined. If the lower border of the stomach thus determined passes beyond a line drawn from the umbilicus to the salient angle of the left false ribs in the intervals between meals, or if at any time after a meal it passes below this line, a pathological degree of distension is present. At the same time the area of stomach resonance over the lower ribs may extend upward beyond the

sixth rib, and to the left beyond the normal limits.

Or we may make use of salol (Ewald's test) to determine the time at which the food passes out of the stomach. This body is unchanged in the stomach, but broken up in the duodenum into phenol and salicylic acid. The latter at once passes into the urine, where it gives the characteristic deep purple color with perchloride of iron. Ewald thought that the time of its first appearance in the urine gave certain information as to the motor power of the gastric muscle, but this time has been shown to be very variable, and the test must be used in another way. According to Huber, the reaction should normally disappear from the urine twenty-six hours after ingestion, while in cases of impaired mobility it may still be obtained after thirty to thirty-six hours.

Rossbach has recently shown that in dogs the contents of the stomach are not ejected from time to time as digestion proceeds, as is generally stated in the text-books, but that the pylorus remains firmly closed until from four to six hours have elapsed, and then relaxes, and the stomach contents are ejected in four or five successive squirts, active contractions of the pyloric end of the stomach playing an important part in the process.

The most important facts learned from the above methods of clinical investigation are as follows:

The pathological variations of acidity may be divided into two groups, excess and deficiency of hydrochloric acid.

First, hydrochloric acid may be present in excess only during digestion, the symptoms of dyspepsia coming on in from thirty to sixty minutes after a meal, and consisting of acid regurgitations and epigastric pain.

Secondly, hydrochloric acid may be present in excess both during meals and in the intervals between them. In this case there is generally dilatation of the stomach, which Riegel thinks may arise from spasm of the pylorus, excited by the excessive acidity, hindering the outflow of the stomach contents. The patients are anemic and often emaciated. They suffer much from epigastric pains, flatulence, and sometimes from vomiting. Especially characteristic are nocturnal attacks of severe pain, and often vomiting. The conditions may thus closely resemble cancer of the stomach.

According to Mathieu, the digestion of meat is complete, of carbo-hydrates *nil*, in these cases. He states that the exaggerated secretion of hydrochloric acid may come on in "crises," with pain in the epigastrium, acid vomitings, and severe headache, and suggests that the "gastric

crises" of *tabes dorsalis* are due to this affection of the stomach.

In a case of this acid dyspepsia with slight dilatation we have found the total acidity to be .4 per cent, instead of .1 or .2 per cent.

Thirdly, in round ulcer the quantity of hydrochloric acid is generally but not invariably increased. In a patient now under treatment the total acidity is .3 per cent. In the acid dyspepsia of chlorosis it is common to find some excess of hydrochloric acid in the gastric contents. These facts are significant when we remember that round ulcer is especially liable to occur in anemic girls. Possibly the excessive secretion of hydrochloric acid is the antecedent stage, and in the bloodless condition of the stomach walls leads on to the formation of ulcer.

Besides hydrochloric, butyric and acetic acids may be in excess; but when this is the case, the amount of hydrochloric is generally deficient. The secretion of hydrochloric acid is deficient or absent in (1) cancer of the stomach, (2) atrophy of the mucous membrane, (3) sometimes in the continued fevers, (4) in dyspepsia nervosa, and (5) very occasionally in persons otherwise in apparent good health. The most frequent and important cases in which hydrochloric acid is absent from the stomach during digestion are those of cancer, and this fact often affords us valuable aid in diagnosis. Atrophy of the gastric mucous membrane is a rare condition. The diagnosis between cancer of the stomach and fever will rarely be a matter of difficulty. There remain the cases where hydrochloric acid is absent from the gastric juice in apparent health. Hayem and Winter mention six cases of the latter class. One of this kind has recently come under my notice. The patient was a lad of sixteen, who complained that about an hour after meals he suffered from eructations of fluid which tasted and smelled like rotten eggs. He had no pain or vomiting, and seemed in good health. On examining the gastric juice, it gave only a very feeble acid reaction, and with the smallest possible trace of hydrochloric acid.

If the possible exceptions to the rule that the secretion of hydrochloric acid is absent in cases of cancer of the stomach be borne in mind, I do not think that they militate seriously against the value of this reaction as an aid to diagnosis in cases where the existence of cancer is uncertain, but seems probable. If hydrochloric acid is found absent after repeated examination at various stages of the digestive process, the presumption in favor of cancer is very strong. In eight cases of cancer of the stomach in which I examined the gastric contents on several occasions, in each case hydrochloric acid was uni-

formly absent. The following two cases illustrate the manner in which the absence of reaction was of great aid in diagnosis:

The first, a man of seventy-seven, fairly well nourished, and of healthy appearance, had suffered for three months from epigastric pain and sickness after meals, and on one occasion from slight hematemesis. The epigastrium was tender, but it was difficult to explore it thoroughly, from the roundness of the thoracic cage and the prominence of the lower ribs. We could never discover any tumor, nor was there any dullness over the stomach, which, moreover, was at no time dilated. Hydrochloric acid was absent from the gastric juice. The man, emaciated, grew slowly worse, and died in about two months. At the autopsy a cancerous growth was found at the cardiac end of the stomach, close to the entrance of the esophagus, and therefore so placed that it could never have been felt during life.

The second patient, a man of sixty years of age, had for more than six months suffered from pains after food and acid eructations. Very occasionally he had vomited, but had never brought up blood. The stomach was moderately dilated, and repeated examination failed to show the presence of hydrochloric acid in the gastric contents. The pain and sickness were relieved by daily washing out of the stomach with warm solution of boracic acid. He did not, however, entirely lose these symptoms, and recently dullness was detected over the right side of the epigastrium, where a small, hard nodule can now be felt, undoubtedly of cancerous nature.

Whether hydrochloric acid is absent in the early stages of cancer of the stomach, I am unable to state from personal observation. That it is not necessary for the stomach walls to be extensively infiltrated with new growth, the following case shows:

Sarah T., aged forty-seven, married, of healthy family; no children; no previous illness. She came under my care in September, 1890, and stated that the present illness began in January, 1890, with pains in hands and head. The pains after a time shifted to the left hypochondriac region, where they have since remained. She lost her appetite entirely, and became very weak. The pain was worse after meals. She was losing flesh, and suffered much from constipation. There had been no vomiting. The patient was anemic and emaciated. On examination the first sound of the heart was reduplicated at the apex, but otherwise the thoracic organs were healthy. The tongue was furred, the abdomen rather hollow, and on the right side, about two inches above and a little to the right of the umbilicus, was a small, irreg-



ular, and intensely hard lump about two inches in its longest diameter, which was from above downward. It was intensely tender, and moved freely with respiration. The stomach was not dilated, and there was no ascites. The gastric contents at no time contained hydrochloric, but a good deal of lactic and butyric acids. She died in about a fortnight, and for a few days before her death the stomach was enormously dilated, and she suffered much from vomiting. At the autopsy a small nodule of almost cartilaginous hardness was found at the pylorus, constricting the orifice. Microscopic examination showed it to be a scirrhus growth. This case only came under observation very late in the disease, but it shows that the new growth may be very small and entirely limited to the pylorus, and yet hydrochloric acid may fail to be secreted. It is very difficult to see why such a limited growth should, even in the late stages, interfere with the secretion of hydrochloric acid. At an earlier stage it would probably not do so.

The diagnosis of gastric carcinoma is often a matter of great difficulty, and especially so in cases where there is dilatation of the stomach. This dilatation may arise from organic disease obstructing in some way the pyloric opening, or, on the other hand, it may be "simple;" that is to say, not due to organic disease, but from a functional weakness of the gastric walls. This latter is not an uncommon condition in both men and women, and arises in many conditions; for instance, in persons who overload the stomach by too heavy and too frequent meals, in the course of the continued fevers or during convalescence from acute diseases, in alcoholism, neurasthenia, phthisis, severe anemia, chronic rheumatoid arthritis, and other debilitated states. Bouchard believes that there is an hereditary weakness of the stomach walls in some cases. If we are, however, aware of its occurrence under such circumstances, the diagnosis can generally be made with certainty. It is, however, in conditions where dilatation exists together with a tumor of some kind in the neighborhood of the stomach that real difficulty arises. The cases that most nearly simulate cancer of the stomach are those of cancer of the head of the pancreas and cancer of the gall-bladder, either of which may compress the pylorus and so cause dilatation of the stomach. The same thing may more rarely happen in cases of new growth in the left lobe of the liver, and, lastly, may be produced by the thickening and contraction around an ulcer seated close to the pylorus, either in the stomach or in the duodenum. In these cases of ulcer the diagnosis from ordinary physical signs and symptoms alone may be impossible, especially when

the patient is in late middle life. Duodenal ulcer in this situation occurs most commonly after the age of thirty, and may be present in elderly people. At an autopsy recently I found a simple ulcer of the duodenum in a man of sixty years of age, which was surrounded by a mass of inflammatory new formation, causing some obstruction of the pylorus with dilatation of the stomach, but apparently not sufficient to give rise to symptoms during life more urgent than those of a moderate degree of dyspepsia.

The following is a good instance of the difficulties of distinction between gastric ulcer in the region of the pylorus and cancer in the same situation:

William B., a laborer, aged forty-five, had attended as an out-patient, several times during the previous two years, for severe pains in the stomach and vomiting after meals. The pain was always localized over the right side of the epigastrium, came on about an hour after eating, and was to some extent relieved when the meal was vomited. There had never been any hematemesis. Beyond severe dyspepsia, for many years he had had no bad illness, and had always been temperate. On July 8, 1887, he came to me with an aggravation of the pain and vomiting, and on examination there was then found dullness over the right epigastric region, which was fuller than the left, and on palpation in this situation an ill-defined, rather hard tumor, about the size of a large orange, and excessively tender, was felt. The stomach was moderately dilated. On milk diet, with the administration of opium and bismuth, the pain was partly relieved, but on September 1st he was taken suddenly ill with intense pain in the stomach, and for the first time vomited a large quantity of blood. He died in a state of collapse some twelve hours later. At the autopsy acute general peritonitis was present. The stomach at the pyloric end was the seat of a tumor about the size of the two fists, composed of firm, hard, pale tissue. Two large, deep ulcers with ragged walls were found in this tumor, and at the base of one of these perforation into the peritoneal cavity had occurred, and hemorrhage had taken place from it. The surrounding organs were matted together by adhesions, the pylorus was very much narrowed, and the stomach dilated. The tumor appeared to consist of inflammatory new formation thrown out around the ulcers, and careful microscopic examination of portions from several parts of the tumor showed that this was its structure.

If, as seems at present to be the case, the amount of hydrochloric acid secreted is generally increased and always present in cases of

ulcer, and is absent in carcinoma, we have in this test a most valuable diagnostic agent in cases such as the above, where the distinction on other grounds is exceedingly difficult, and it will similarly be of service in those cases of cancer of the head of the pancreas or of other viscera where new growth in the stomach is closely simulated. I am not contending that in all patients with dyspepsia, or in whom dyspeptic symptoms occur, a portion of the gastric contents should be removed and analyzed according to the method detailed above, but I think that it should be done where new growth or ulcer is expected, and that when dyspepsia does not yield to treatment we may often obtain valuable information from the procedure as to what ingredient of the gastric juice is deficient or in excess, and thus be enabled to modify the treatment accordingly, and so give relief. In conclusion, it may be well to add that by using a soft India-rubber tube without a stiffened end, such as that sold under the name of Jaques' patent, which answers the purpose perfectly well, there is no risk of doing harm, even in cases of ulcer.—*Dr. J. M. Clarke, Bristol Medico-Chirurgical Journal.*

**A CASE OF ANGINA LUDOVICI.**—A man aged fifty years was seized early in the morning with a severe prolonged rigor, dysphagia, and great pain in the mouth and submaxillary region. I first saw him at 9 A. M. His temperature then was 105° F.; pulse 150; respiration noisy, due to swelling up of tissues about the laryngeal orifice; headache, prostration, and covered with cold sweat. On looking into the mouth the tongue was seen pressed up against the palate by the swollen sublingual tissues; and so considerable and firm was this sublingual cellulitis that a spatula could only with difficulty be passed between the tongue and palate; depressing the tongue was quite out of the question, consequently the fauces could not be inspected. The patient could neither swallow nor speak, and it is surprising how he was able even to breathe as well as he did. There was albuminuria to the extent of one sixth. The sublingual tissues were scarified, and leeches applied below the jaw. Poulitices and steam inhalations were ordered. These measures relieved the pain somewhat, and in the evening the temperature fell to 103°, but the dysphagia and dyspnea continued. The following morning the temperature was 104°. Submaxillary edema increased, with commencing redness of the skin, and cellulitis was spreading down the neck between the sterno-mastoids. The patient was feebler, and the dyspnea greater. To relieve tension and drain the tissues two deep incisions were made in the middle line of the neck, one an inch

long above the hyoid bone, which reached well down to the floor of the mouth; the second, two inches long, over the cricoid cartilage and thyroid isthmus. The tissues cut through were swollen and sodden, and foul, serous blood stained fluid poured out from both. These incisions gave marked and speedy relief, and the patient was shortly able to swallow and speak distinctly. Hot fomentations of tenax were applied, quinine and aconite administered. Evening temperature 101°; great relief. Brandy mixture ordered. Third day, 9 A. M.: Temperature 100°; not quite so well. 1 P. M.: Temperature 104°; swelling and redness over upper part of sternum; leeches and poulitices applied. 11 P. M.: Temperature 101°; swelling over the sternum disappeared; feels much better. Fourth day: Temperature 100°; much improved; wounds discharging. Fifth day: The patient up and about; feels much better, but very weak. From this to the seventeenth day the patient improved, the incisions healed, and he became practically well. Angina Ludovici is attended by a considerable mortality, and is fortunately not of common occurrence. The relief and arrest of symptoms given by the incisions and leeching were so marked that they should be the essentials of treatment in this disease; and to be of service incisions must be made early in the case. It is too late to cut when the tissues of the neck are sloughing and the cellulitis is spreading down to the chest and the patient showing signs of profound blood-poisoning. There was no local condition, such as a carious tooth or ulcer of the mouth or pharynx, to account for the onset of the angina; but the patient's occupation, that of a butcher, suggested the possibility of his having absorbed or been inoculated with some animal or specific poison.—*Dr. T. A. Jones, London Lancet.*

**MERCURIAL ERUPTION.**—An interesting case of mercurial urticaria, occurring in a syphilitic watchmaker aged sixteen, is narrated by Dr. Jarisoff, of Moscow. Attacks of a typical urticaria invariably followed hypodermic injections of corrosive sublimate, the rash lasting for several hours. The size and extension of the eruption varied greatly. Sometimes the itching wheals covered only this or that forearm. On other occasions they were scattered over the whole abdomen, back, neck, and thighs. On the injection being discontinued, the attacks would cease to occur, returning immediately after the mercurial treatment was resumed. Dr. Jarisoff does not entertain any doubt that the exanthem had a mercurial origin. International literature contains but a scanty number of cases of undoubted mercurial eruptions.—*The British Medical Journal of Dermatology.*



# The American Practitioner and News

"NEC TENUI PENNA."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## ALBUMINURIA IN PERSONS APPARENTLY HEALTHY, AND ITS RELATION TO LIFE INSURANCE.

There is nothing in the life of the conscientious Life Insurance Medical Examiner that makes more provokingly doubtful the balance of right and wrong than the question of the insurableness of certain mild or fitful albuminuria. Candidates, who would otherwise pass first-class for any sort of a policy in any first-class company, are every now and then held over by the examiners, or rejected by the medical directors, when the condition of their urine becomes a clause in the application.

Companies that do not require an examination of the urine, or require it only under certain conditions, probably carry many persons who have albuminuria and don't know it, while such as are held up by the medical examiners, the applications never being sent to the home office, often slip into such companies and nothing said.

There is probably no physician whose practice has extended beyond a decade who does not have under his eye men who have had intermittent albuminuria for years without showing any other clinical sign of renal disease, while the same physician has at the same time

in mind the fatal wind up in Bright's disease of perhaps an equal number who at one time would have passed muster as albuminurics without kidney lesion.

Thus conditioned, the question is one upon which the local examiner naturally stands in doubt, while as a rule if he commend the candidate to the scientific consideration of the home office directors the application is rejected with unqualified promptness and precision. Thus shamed and chagrined he is likely to withdraw the applications of such candidates in future, choosing rather to lose his fee than to put upon a young, seemingly healthy and promising man the opprobrium of life insurance rejection.

In view of these considerations something positive from a well-known Life Insurance Medical Director will find many appreciative readers.

The Medical Record of June 13th contains a valuable paper on this topic, which was read before the Association of Life Insurance Directors by Dr. William B. Davis at the meeting in New York on May 29, 1891.

We append the author's concluding

GENERAL RULES. 1. There should be nothing in the family history indicative of heredity of Bright's disease, and there should be no symptom of renal disease in the personal history except albuminuria.

2. The candidate should be under forty years of age, in good health, and there should be no history of gout, rheumatism, syphilis, lead-poisoning, nephritis, intemperance, chronic dyspepsia, or dropsy.

3. There should be no indication of hypertrophy of heart or increased arterial tension, no accentuation of the aortic second sound, and no palpitation or dyspnea.

4. There should be no retinal changes.

5. The color, density, and quantity of the twenty-four hours' urine should be normal, or it may be darker in color and heavier in density.

6. The specific gravity of the twenty-four hours' urine should not be below 1.020. It may range from 1.015 to 1.030.

7. The precipitated albumen should not exceed one eighth of the urine.

8. There should be a period of the twenty-four hours when the urine is free from albumen.

9. The urine, as a rule, should contain no tubercasts. When, however, the specific gravity and quantity of urine are normal, the presence of a few hyaline casts have no serious import.

When the above conditions have been met, and we are convinced of the ability of the medical examiner, and are satisfied with the completeness and carefulness with which the investigation of the case has been made, I think we can safely approve the candidate for a short endowment policy.

To a person who has passed the above gaunt et and

been subjected to a rigid medical examination, this action will doubtless appear illiberal, but until the clinical significance of albuminuria in persons apparently healthy has been finally determined by observations upon one full generation, we can not and probably ought not to expect life assurance companies to do any better for them.

A MEETING OF THE MEDICAL EDITORS OF THE UNITED STATES will be called during the week of the meeting of the Mississippi Valley Medical Association in St. Louis for conference. Dr. Hughes and Dr. Woodbury, the president and vice-president, are anxious that there should be a full conference of medical editors; and the chairman of the Committee of Arrangements promises that every thing in his power shall be done officially and personally to make the visit agreeable and profitable.

### Notes and Queries.

INDIANA STATE MEDICAL SOCIETY.—The forty-second annual session of the Indiana State Medical Society was held at Indianapolis, June 10th and 11th. The officers elected for the coming year are: President, Dr. Edwin Walker, Evansville; Vice-President, Dr. Erwin Wright, Huntington; Secretary, Dr. I. N. Elder, Indianapolis; Assistant Secretary, Dr. T. A. Kennedy, Shelbyville; Treasurer, Dr. J. O. Stiltsee, Indianapolis. Dr. Edwin Walker, the President, is the youngest man elected to that position for many years.

Dr. Theodore Potter made an interesting report on Bacteriological Investigations, in the course of which he said that there is a growing belief that the older ideas of heredity are exaggerated, that disease is to be looked upon as an infection rather than an inheritance, that it is comparatively rarely transmitted from parent to child in course of nature; yet, he added, the doctrine of heredity is by no means overthrown, and we must still wait for the whole truth.

Dr. J. W. Milligan, of Indianapolis, read a paper on Antiseptic Methods applied to Obstetrics. This was thoroughly discussed, and soap and water received most commendations as the most efficient disinfectant. Puerperal

fever has existed for two hundred years, and it is time it is disappearing.

Dr. C. C. Morris, of Rockville, read on The Salicylic Treatment of Typhoid Fever. He said that salicylate of soda is an acknowledged germicide, and there is every reason for its use in typhoid and kindred diseases.

The meeting was largely attended, two hundred and fifty physicians being present. The reports of the Secretary, Dr. E. S. Elder, Treasurer, Dr. Frank C. Ferguson, and the Committee on Necrology, Dr. J. F. Hibberd, of Richmond, occupied a large part of the morning session the first day.

The alumni of the Medical College of Indiana celebrated the 21st year of its existence by a banquet at the Dennison House, Wednesday evening. More than two hundred of the members were present, and the occasion was highly enjoyable, both the rich viands and the feast of reason and flow of wit which enlivened the wee sma' hours.

Dr. J. A. Sutcliffe, of Indianapolis, had an interesting paper on Perineal Section, with a number of descriptive cases. Following this, Dr. C. H. Smith, of Lebanon, treated of Abortion. He spoke of those cases occasioned by accident or disease, and laid great stress on the patient having absolute physical and mental rest, and then relief from pain.

Dr. Owen: What should be the relation of contract corporation surgeons to the medical profession? The subject was referred to a committee consisting of Drs. Owen, Hibberd, and Sutcliffe, with instructions to report before close of meeting.

Dr. M. F. Porter, of Fort Wayne, read on Report of a Case of Sarcoma of the Ovary, Operation and Recovery.

After this came a paper by Dr. F. C. Ferguson, of Indianapolis, on Some Fallacies in Gynecology.

The topic Diphtheria was handled by Dr. W. A. McCoy, of Madison, and the venerable Dr. Lomax said he had come across the term "diphtherite" in the beginning of his practice fifty-four years ago, and the disease soon after: hence it was not a product of modern civilization, as sometimes supposed.

The address of the President, Dr. Gonzalva



C. Smythe, of Greencastle, on *The Influence of Heredity in Producing Disease and Degeneracy, and its Remedies*, was a very able one. He showed what might be determined from the standpoint of the biologist, and spoke of inebriety as a physical disease which may be inherited, the children of inebriates becoming perhaps epileptic, insane, or criminals. In a large proportion of cases the third and fourth generations from drunkards are criminals or paupers. He said the profession was face to face with one of the greatest problems in sociology which confronts the present day. It is its duty to open up the way so the religious and civil authorities can follow. He proposed for the Government to take the matter in hand and only admit those emigrants who can furnish a consular certificate that neither tuberculosis, scrofula, cancer, insanity, inebriety, crime, or pauperism is hereditary in the families from which they sprung. It is a comparatively easy matter for the Government to exclude from admission any more of these people thus diseased, but how to dispose of the stock now on hand will tax the best minds of the country. The State interposes no objection to the marriage and multiplication of these people. She licenses and legalizes a traffic which largely contributes to their propagation and the influence of which will be handed down to posterity. It is the duty of the Government, as a sanitary measure, to assume entire control of the manufacture and sale of alcohol. Every attribute of the human family might be improved, and new ones be possibly developed, were science brought to the aid of sentiment in mating the sexes.

Dr. A. B. Richardson, of Cincinnati, read on *Hysteria*. The manifestations of the disease he called "fugacious," and compared them to the cuckoo building no nest of its own, but stealing into those prepared by other physiological processes.

Dr. J. R. Weist, of Richmond, reported the lamentable failure of the two bills before the last Congress in which this Society had special interest. One of these was to protect physicians, editors, and others against speculative lawsuits; the other for the regulation of expert medical testimony in court.

A. W. Brayton, of Indianapolis, presented a

girl fourteen years old afflicted with the extremely rare disease of the skin known as xeroderma pigmentosum (Kaposi's disease). This is the only case ever known in the Mississippi Valley, and the eleventh known in the United States.

Dr. G. W. McCaskey read a paper on *Some Needed Medical Legislation*. Following this came a paper by Dr. S. M. Voris, of Columbus, on *Lacerations of the Perineum*, and one by Dr. G. W. Vernon, of Indianapolis, on *Vulvovaginitis in Children*.

At the afternoon session papers were read by Dr. F. C. Woodburn, of Indianapolis, on *Valvular Heart Diseases*; S. C. Evans, of Union City, on *Nasal and Naso-Pharyngeal Reflexes*; H. McCullough, of Fort Wayne, on *Functional Aphonia*; C. L. Thomas, of Logansport, on *Cataract with or without Iridectomy*; Norman Teal, of Kendallville, on *Health and Vital Statistics*; S. W. Gould, of Argos, on *Opium and its Preparations*, and M. F. Johnston, of Richmond, on *Angina Pectoris*.

When the last paper was read, President Smythe came forward and presented the newly elected President, Dr. Edwin Walker, to the Convention. When the applause which greeted the presentation had subsided, Dr. Walker made a short address, and the Society then adjourned to meet on the second Thursday in May, 1892.

*To the Readers of the American Practitioner and News:*

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will hold its seventeenth annual session at the Pickwick Theater, Jefferson and Washington Avenues, St. Louis, October 14th, 15th, and 16th. A full programme of interesting papers has been prepared and provision has been made for the fullest, freest, and most complete discussion of the same. Representative men from various sections of the country have been invited to open the discussions. The local profession of St. Louis is a unit to the end that every visiting physician shall be received and welcomed in regular warm-hearted, St. Louis style.

The same qualifications for membership are requisite in this Association as for the American Medical Association, the former being

subordinate to the latter. If eligible, you and your friends, together with your wives and families, are most cordially invited to visit St. Louis and enter into the scientific work and the social pleasures as you may desire.

I. N. LOVE, M. D.,  
Chairman Com. Arr.

DR. JOHN H. RAUCH's resignation as Secretary of the State Board of Health of Illinois was tendered and accepted at the meeting of the board held in Chicago on June 30th. The letter of resignation was as follows:

W. A. Haskell, M. D., President Illinois State Board of Health, Doctor: I beg to tender my resignation of the office of Secretary to which I was re-elected at the last meeting. While I must stipulate that this resignation shall take effect as of this date, I do not wish to embarrass the board in any manner, and shall be happy to furnish the fullest information concerning the complicated details of the Secretary's office and to discharge without compensation any of its duties that the board may indicate for a reasonable period. Accept for yourself personally and convey to the other members of the board my thanks for the uniform courtesy and generous support which has been accorded me, since the first organization of the board in 1877, as your President and Secretary.

JOHN H. RAUCH.

**SIMPLE METHOD OF DIFFERENTIATING BUTTER AND OLEOMARGARIN.**—As stated in a recent number of this journal (*National Druggist*), probably the easiest reliable test is the alcoholic solution of silver nitrate. Dissolve 25 parts of the silver nitrate in 100 parts of alcohol of 95°. Put some of this solution in a test-tube, and melt and add a portion of the material to be tested. Agitate for a few moments and let stand. Pure butter retains its natural color, while the margarin will become a dirty brick-red, the color of a mixed sample depending upon the quantity of the adulterant present therein. The test is said to be sufficiently delicate to detect 5 per cent of margarin, while with 10 per cent the color reaction is very strong.

Bodairy has devised a process by which the percentage of oleomargarin in adulterated butter may be rapidly determined with an approach to exactness. It is as follows: Into a graduated test-tube of large size pour 15 cubic centimeters of toluol. To this add 15 cubic centimeters of the butter to be analyzed; after having melted and strained it, pour on top of the butter 50 cubic centimeters of alcohol of

97°, shake and place the whole in a water-bath heated 50° C. The liquid remains clear, or nearly so, if the butter be pure, while if margarin be present it first becomes turbid, and later separates into two layers, of which the upper contains the margarin. The following gives the approximate percentages of margarin ascertained by the volume of the layer:

11 cubic centimeters of layer...10 per cent margarin.  
14 cubic centimeters of layer...20 per cent margarin.  
19 cubic centimeters of layer...50 per cent margarin.  
29 cubic centimeters of layer...75 per cent margarin.

## SPECIAL NOTICES.

MESSRS. REED & CARRICK have rebuilt their laboratory, and are better prepared than before their big fire to furnish the excellent specialties which bear their name. In this connection we invite special attention to their new advertisement. They are known everywhere, and their name is the synonym for fair dealing and scientific pharmacy.—*Practice*.

To overcome the appetite for strong drink we must employ a remedial agent which, while acting as a stimulant and tonic on the system, will cause no disgust for it or nausea when its use is continued for some time. In CELERINA we have almost a certain cure. CELERINA, while causing no nausea whatever through and by itself, will, in most cases, as extensive experience has proven, imbue the person using it with an actual disgust for and an abhorrence of all kinds of strong drink. In the varied conditions following the abuse of alcohol, opium, and tobacco, to restore the patient and tone the nervous system, CELERINA is of great value, and as a tonic to the nervous system in all these cases of nervous exhaustion, whether evolved in the cerebral or spinal centers. CELERINA, in doses of a fluidrachm three times a day, destroys the craving for alcoholic liquors. CELERINA is a remedy par excellence to tone the nervous system in the varied conditions following sexual excesses and the abuse of alcohol, opium, and tobacco.

**THE EMPEROR OF GERMANY IN ENGLAND.**—The State Banquet at Windsor was admirably served, and the menu had wisely been reduced to reasonable proportions. The Emperor appeared most to enjoy the Bisque d'Ecrevisses aux Grenelles, the hanch of venison, the roast beef and the Charlotte Russe aux Fraises. His Majesty drank Rhine Wine at dinner and Apollinaris Water, and afterward he took a bumper of the Queen's famous Madeira, finishing up with a glass of Tokay, like his grandfather, the Prince Consort, who always concluded his dinner with Tokay, of which her Majesty possesses a unique cellar."—*The World*, July 15, 1891.

The preparations of "Hypophosphites," "Coca," "Pepsin," etc., made by the Robinson-Pattet Co. are indorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See their advertisement in this issue.)



# THE AMERICAN PRACTITIONER AND NEWS

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[NEW SERIES.]

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### THE OFFICIAL INVESTIGATION OF THE SNOOK-HERR POISONING.

BY H. M. GOODMAN, M. D.

*Demonstrator of Physiology, Bacteriology, and Pathology, University of Louisville.*

*Viscera of Mrs. Guthrie.* The *post-mortem* examination of Mrs. Guthrie was held at the residence, April 23, 1891. *Rigor mortis* was well marked. The incision was made from the ensiform cartilage to the pubes, the transverse incision on each side from the umbilicus to the crests of the ilii. Visceral peritoneum was adherent to the parietal peritoneum. The stomach and small and large intestines were intensely injected, and presented numerous black spots. These spots were movable, and represented particles of fecal matter. The intestines were moderately distended. The posterior wall of the stomach was adherent to the transverse duodenum and the peritoneal covering of the pancreas. Spleen very small. Liver enlarged, congested, soft and friable; gall-bladder very much distended. Transverse colon adherent to the jejunum. Mesenteric vessels congested with dark blue blood. Contents of intestines composed of dark green matter, almost black, consisting mainly of mucus, pus, and granular debris with some fecal matter. Great vessels of spleen, stomach, liver and kidneys empty. The specimens were placed in proper jars and sealed with the official seal of the coroner, and sent to the University laboratory.

Dr. Turner Anderson turned over copies of

all prescriptions used in the treatment of the case.

These jars were opened by Coroner Miller in the presence of Drs. Anderson, Cottell, Goodman, and Howard.

The stomach, on being removed from the ninety-five per cent alcohol in which it had been placed, gave off a putrescent odor. On the posterior surface the branches of the gastric vessels were injected, and the surface discolored about the pyloric extremity; there was considerable puffiness of the peritoneal coat from broken adhesions. On the anterior surface the vessels were injected, and the mucous membrane for a space of  $2 \times 2$  inches was eroded, as well as the muscular coat down to the peritoneal coat; inflammatory injection of both surfaces near the pyloric end. No material was found adhering to the mucous membrane; three ulcers were seen at the pyloric extremity, and the mucous membrane was eroded. At the esophageal extremity were four large ulcers extending down to the peritoneal coat.

*Intestines:* The mucous membrane in two or three places was eroded and destroyed down to basement membrane; no sphacelation whatever; one minute ulcer extended down to muscular coat; a few ulcers were found in the jejunum and ileum. The lumen of the gut was contracted and the mesenteric vessels injected.

The same conditions of inflammatory action were found throughout the entire large intestine, the ulcers, some forty or fifty in number, being confined principally to the cecum. The contents of the intestinal tract were composed of a dark bile-stained mass, and this material was adherent at the seat of the ulcers.

Stomach contents were examined, after proper treatment by many separate tests for arsenic, with negative results. Another portion was especially examined for mercury and copper,

but none was found. The remaining portion of contents and stomach, after destruction of organic matter, was examined for arsenic, antimony, lead, mercury, copper and tin, but the result in every instance was negative.

Microscopically no crystalline substance nor botanical fragments were found. The contents were composed of mucus, pus, granular *debris*, free fat, epithelium (some undergoing fatty degeneration), and bile, as shown by proper tests. The hemin test for blood was negative. Stained and examined for bacteria, many varieties were found, especially pus organisms, and a peculiar rod-like bacillus, similar to the ones found in the salad. Microscopic examination of the contents of the small and large intestines showed, in addition to fecal matter and muscular fiber, essentially the same conditions. The hemin test for blood was negative.

The specimen of subnitrate of bismuth used in Mrs. Guthrie's case was examined and found to contain minute traces of arsenic.

The liver, spleen, and kidneys, after proper treatment, were examined for the same metals, especial efforts being made to determine the presence of copper, arsenic, and mercury, and in every instance we failed to detect the slightest trace. This work was done by Prof. H. A. Cottell and Dr. Goodman, assisted by Dr. Howard and Mr. I. C. Young.

*Viscera of William Terry.* Mr. Terry died at noon, on April 25, 1891. The autopsy was conducted by Dr. H. C. Miller, Coroner of Jefferson County, in the presence of Dr. C. W. Harvey. Dr. Harvey's letter to the coroner is as follows:

DEAR DOCTOR: I was called to see Mr. William Terry about eighteen hours after he partook of the fatal dinner at Mr. Albert Herr's. I found him very much prostrated from having purged and vomited almost incessantly for several hours before my arrival, his greatest trouble being in his bowels. I at once had the lower bowel flushed with hot water, after which I had injected twenty drops of tincture of opium. I also gave him Belle of Nelsen whisky, and had hot applications used over his bowels. I also gave him small doses of subnitrate of bismuth and sacch. pepsin every four or six hours, but he only took two or three doses, as he did not complain of being very sick at his stomach. I had his bowels flushed with the hot water every six or eight hours, using the laudanum afterward, which gave him marked relief. On the fourth night, about 12 o'clock, he went into a collapsed state; whisky applied externally and given freely internally, with hot bottles,

Failing to bring on reaction, I gave him whisky with ten drops of tincture digitalis, hypodermically, which brought on partial reaction. From this time until his death I used nothing but stimulants and concentrated nourishment, with an occasional ten-drop dose of digitalis. I send sample of bismuth; let me know if above is not enough. I have to hurry so much to get this in the mail that I may have left out something important.

ANCHORAGE, April 27, 1891.

C. W. HARVEY.

The viscera were contained in two glass jars, one with a glass top, the other with a japanned tin top, and both were sealed with the official seal of the coroner. Upon examination the seals were found intact, and they were then broken in the presence of the following gentlemen, Drs. Cecil, Howard, Chenoweth, Goodman, and Mr. I. C. Young.

Inspection: Stomach showed signs of inflammation when viewed externally, the vessels particularly over the posterior surface being injected. Upon being opened the contents were received in a separate clean glass receptacle. No signs of threatened perforation or perforation was noticed. There was a diffused congestion of the mucous membrane, with catarrhal exudate on the surface and infiltration of the submucous coat. Some minute white dots were found in the substance of the mucous membrane, which, upon examination, were found to represent small foci of pus. Submucous and muscular coats slightly hypertrophied, especially toward the pylorus. Toward the pyloric extremity and extending into the central zone the tubules were enlarged and broken down. The mucous membrane was coated with mucus, especially toward the pylorus.

Stomach Contents: The contents were composed of a small amount of a yellow semi-transparent fluid. Microscopic examination of this fluid showed no crystalline substance, only mucus and a few pus corpuscles and fat cells and columnar epithelium. The hemin test for blood showed none.

Duodenum: At the junction of the duodenum with the pyloric end of the stomach was found a growth which began as a flat infiltration of the submucous coat, which partially surrounded the intestine, infiltrating its whole thickness. Small fungous masses projected into the intestine at this point, and there were evident signs of ulceration about the seat of the



growth. This growth was probably carcinomatous, though no microscopic examination was made.

The entire small and large intestines were in a state of acute catarrhal inflammation, extending to all three coats. The solitary and agminate glands were congested. The mesenteric vessels were intensely injected through the entire extent of the intestines and the amount of mucus very much increased. Mucous membrane eroded in places, though there were no signs of impending perforation. Lower portion of small intestine and the colon presented in many places patches of ulceration. The ulceration in some instances extended down to basement membrane, in others down to muscular coat.

**Contents of Intestines:** A yellow, glairy, semi-transparent fluid. Microscopic examination showed mucous corpuscles, bacteria cells, pus cells, fat and epithelium, and granular debris. Hemin test for blood showed none.

The liver, spleen, and kidneys appeared healthy. A large gall-stone was removed from the bile-duct.

**Chemical Examination.** After proper treatment with pure hydrochloric acid, each one of the viscera was examined separately: The stomach, contents, and intestines for contained poisons; the liver, spleen, and kidneys for absorbed poisons. The resulting liquids were then successively submitted to Reinsch's and Marsh's test, and in every instance we failed absolutely to demonstrate the presence of either arsenic, antimony or mercury. It was not thought necessary to examine these viscera for other poisons, as these had been sufficiently excluded in the examination in the case of Mrs. Guthrie. The specimen of bismuth sent by Dr. Harvey was examined for arsenic and found to be pure.

#### RESUMÉ OF THE EVIDENCE, CLINICAL AND CHEMICAL, AND THE CONTINUATION OF THE INVESTIGATION.

By H. M. GOODMAN, M. D.

The chemical investigation having failed to demonstrate the presence of poison, either of a vegetable or mineral nature, the search was continued through some other material that

had been placed at my disposal in the hope of probably settling the question definitely.

Before detailing the results of this portion of my work, I desire to consider these cases from the standpoint of their clinical symptoms and to discuss fairly and impartially some of the many theories that have been advanced. That the poisoning was due to some irritating substance is so apparent that it may be accepted as proven beyond all question of a doubt. Among the many substances capable of exciting the symptoms of intense gastro-intestinal irritation we find poisons of a vegetable or mineral nature, and lastly, but by no means least, the "animal irritants."

The symptoms of irritant poisoning are so nearly akin that it may at times be impossible to separate the one from the other by clinical signs alone, yet the difference of symptoms in poisoning between the three classes of irritants is in many respects so marked that, in spite of the similarity, it is possible by careful study of the occurrence of the symptoms to separate the one from the other, even in isolated cases. Prominent among the various mineral irritants are found such substances as the mineral acids, the alkalies and their salts, phosphorus, iodine, bromine, chlorine, arsenic, antimony, mercury, lead, copper, zinc, iron, bismuth, tin, and chromium. The principal vegetable irritants are oxalic acid, tartaric and acetic acids, carbolic acid, croton oil, elaterium, castor-oil beans, colchicum and savin, veratrine, yellow jessamine, gelsemine and gelsemic acid, poisonous mushrooms, etc. Among the list of animal irritants we find cantharides, poisonous animal food (ptomaines), sausage poison, cheese poisons, poisonous fish, putrescent food (ptomaines), poisoned flesh.

The arsenic theory, or that the poisoning was due to any mineral substance was, aside from the clinical evidence, sufficiently disproven by my former analysis of the suspicious articles of food, and the bowel and urinary discharges of two of the worst cases (both died), obtained before the close of the second day after the fatal dinner. This is further proven by the analysis of the viscera and contents from the two fatal cases, one of whom died on the seventh day and the other on the ninth day.

*The Copper Theory.* The idea that the poisoning was due to copper emanated in Cincinnati, after an analysis performed upon the organs of the groom. This theory was based upon the statement that the chemist had discovered traces of copper in all the viscera. The newspapers, ever ready for a clew, immediately heralded a "new theory." If I remember aright, after reading the report of the chemist to the coroner, I was struck with its exceeding mildness. After stating that he had found traces of copper in all the organs, he wound up with the remark, "that he was forced to the conclusion that it might be copper." It might have been that some of his chemicals or apparatus were impure. If such poisons as arsenic, mercury, antimony, oxalic acid, copper, etc., can not be detected by their reactions in a test glass, I am exceedingly doubtful about the propriety of giving positive evidence as to their presence from their microscopic form and reactions alone. To manufacture evidence entirely from the micro-chemistry of poisons is an extremely hazardous proceeding. The salts of copper most frequently used in criminal poisoning are the sulphate, verdigris, and cupric hydrogen arsenite (Paris green). Poisoning by the latter salt would have produced symptoms of arsenical and copper poisoning combined, and arsenic would have been found as well as copper. "The fatal dose has not been determined; half an ounce of verdigris has proved fatal, and an ounce of the sulphate, but larger quantities have been swallowed without producing death." (Reese, p. 331.) It is not very likely that seventy-five people would stand up and swallow seventy-five ounces, more or less, of either of these substances, and no one discover it until six or ten hours later. In case it was not placed in the food by some malicious person, all the copper utensils in the neighborhood would have been called into requisition to furnish the desired amount. And, lastly, in none of these cases did a purple line form around the gums, nor did any of them develop jaundice. The latter symptom is said by many authorities to be a pathognomonic symptom of copper poisoning, while it is never met with in poisoning by arsenic or mercury.

*The Chicken-Cholera Theory.* Another idea

advanced, I do not know by whom, is that the illness in all these cases was due to the fact that the chickens were diseased. This sounded plausible enough at first glance, but when I found that the chickens and turkey used in the preparation of the salad were full grown, I did not believe it. At least two hours are required to thoroughly cook a full-grown hen, and the time and temperature necessary would have been sufficient to have destroyed the bacillus of chicken cholera and its spores (the spores being a most resistant part of a bacillus, and we do not know positively as yet that the chicken-cholera bacillus forms spores), had any been present. Dr. Chenoweth brought to me, along with the other articles, some of the intestines of the chickens that were used at the wedding, and found by him in a tin pan in the cellar. Cultures were made from them and set aside for development. In the mean time the effort was made to extract ptomaines from them by the Stas. Otto method.

The various extracts gave the following reactions:

REAGENT.	ALKALINE ETHER EXT.
Phosphomolybdic acid.	White precipitate.
Platinic chloride.	Light yellow precipitate.
Potass. merc. chloride.	White precipitate.
Auric chloride.	Purple precipitate.
Ferrocyanide of potass.	White precipitate.
Tannin.	White precipitate.
Mercuric chloride.	White precipitate.
Ferric chloride.	Reddish-brown precipitate.
REAGENT.	ACID ETHER EXT.
Phosphomolybdic acid.	Yellowish-white precipitate.
Platinic chloride.	Yellowish-white precipitate.
Potass. merc. chloride.	White precipitate.
Auric chloride.	Dirty green precipitate.
Ferrocyanide of potass.	White precipitate.
Tannin.	Dirty white precipitate.
Mercuric chloride.	Heavy white precipitate.
Ferric chloride.	Yellowish-white precipitate.
Iodo-Iodide.	White precipitate.

Chloroform extract gave no especial reaction.

Injected into the bodies of two full-grown hens in doses of three fourths to one dram of the diluted extract produced no result. One dram given by the mouth to another hen produced an irritative diarrhea, lasting about forty-eight hours.

These extracts when compared with similar extracts taken from a hen that died of chicken cholera, and with those previously obtained from the salad, were so entirely different that



no analogy could be made between them. The microscopic examination of these intestines and the glandular and muscular structures of the chickens for the cholera bacillus was negative. The cultures were accidentally misplaced and could not again be identified. While it is true that the intestines and organs of the fowls brought me may not have been those of the fowls diseased, as they were all heaped up in a mass in the receptacle in which they had been placed, and evidently forgotten in the excitement that followed, I do not believe, for the reasons above stated, that chicken cholera had any thing to do with the illness.

"*The Mushroom Theory.*" Before entering into a full discussion of this theory, I desire to quote the following extracts, taken from the article by Von Boeck (Ziemssen's *Cyclopedia of the Practice of Medicine*, vol. xvii, 1878):

Some authors pronounce all fungi to be poisonous, while others say that very few are so. This difference of opinion arises from the fact that some consider certain fungi to be poisonous because they may have produced symptoms of poisoning in those who have partaken of them, and they do not consider whether it is that these fungi contain an integral poison, or *whether other circumstances have tended to make the eating of them injurious.* (Italics mine.) If we assert that a fungus is poisonous, we must be able to prove that it, taken as a plant, contains a substance which, under ordinary circumstances, acts like poison on the life and functions of the human or animal organism. If a fungus does not produce poisonous effects under ordinary circumstances, but leads to illness when special conditions prevail, the fungus, as such, is not to be designated as poisonous. Again, mushrooms are very watery substances; they contain up to ninety per cent of water, but they are also comparatively rich in vegetable albumen, so they contain between 3.2 and 7.2 per cent of nitrogen. Substances so composed become very easily decomposed, and the products of this decomposition may, as in the case of meat, cheese, sausage, and other kinds of food, act very injuriously on the organism, especially the alimentary canal, and may under certain circumstances even produce fatal effects. But these occurrences do not furnish us with data for concluding that the mushrooms are in themselves poisonous.

*Disease through Decayed Fungi.* It is characteristic of all diseases caused by the fungi that they produce violent intestinal symptoms. As a rule the symptoms appear after six to eight hours, seldom earlier, frequently later, so that in some cases the first symptoms of illness do not set in till after eighteen to twenty-four hours. They usually begin with pains in the stomach and intestines; violent colic is the earliest symptom, soon followed by great nausea, with increase of the salivary secretion and then vomiting. This vomiting is seldom over at once; it is generally repeated at longer or shorter intervals, and may last three days, or even longer. Soon after the vomiting diarrhea begins; the actions frequently become purely serous in char-

acter, very like the rice-water discharges of Asiatic cholera. The gastro-intestinal symptoms are directly followed by those of acute drain of fluid. The plumpness of the skin disappears, the eyes sink back in their orbits, the features become pinched and cold, slight cyanosis spreads over the whole body, cardiac contraction becomes insufficient, respiration is labored, and convulsions appear in different groups of muscles, while the patient suffers from insatiable thirst. In some cases these symptoms are succeeded by a condition of sopor, and sometimes, with children, by general convulsions.

The word decay is synonymous with putrefaction; and I presume that the author, in speaking of the poisonous properties of simple or non-poisonous mushrooms, had reference to those changes which occur in any dead nitrogenous organic matter when exposed in the atmosphere under proper conditions of moisture and temperature. Unfortunately, in the days when this article was written, the phenomena of putrefaction were not as thoroughly understood as they are at present, and although the author makes a distinction between mushrooms which contain an integral poisonous principle and simple or non-poisonous mushrooms which become poisonous through decomposition, he was unable to state the cause. We know to-day that when a non-poisonous mushroom becomes poisonous through putrefaction, this result is brought about through the agency of bacteria, and the poisonous principle is a *ptomaine*, or other poisonous product of germ life, and that the nature of the poison depends upon the special germs engaged in its elaboration and the conditions of their environment.

*Poisonous Mushrooms.* The varieties of mushrooms that are said to contain a poisonous principle are as follows: "The *Amanita muscaria*, or fly fungus, the active principle of which is muscarine, the *Amanita phalloides*, *S. venoso*, the *Russula integra*, and *Boletus luridis*." (Von Boeck.) The active principle of the three last varieties is unknown, or at least very uncertain. Woodman and Tidy (vol. xvii, 1877) speak only of the poisonous proportions of the "*Agaricus muscarius*," and with reference to the other poisonous varieties leave one in doubt whether they contain an integral poison or not. Reese, (ed. 1891) remarks that "The poisonous principle of certain fungi appears to be volatile, since boiling renders them innocuous." He gives

a quotation from Orfila of a case of poisoning from the *Amanita citrina*. Blythe (ed. 1885) ascribes poisonous properties to the "*Amanita muscaria*, the *Agaricus phalloides*, a common autumn fungus often mistaken for mushrooms, the *Agaricus ruber*, a bright red fungus of a purple color, the *Solitus satan*, found by Lenz to be poisonous when uncooked, and the common *Morelle*, which seems under certain conditions to be poisonous." It becomes very evident, even at this day, that the poisonous action of fungi is not thoroughly understood. So many conditions modify their action that at times an edible fungus may produce symptoms of poisoning; at other times extremely poisonous ones produce no bad effects. "The active principle of a poisonous mushroom is believed to be volatile, and is dissipated by the action of a moderate heat. It may in great measure be got rid of either by boiling in water or by soaking the mushrooms cut into slices in brine or vinegar." (Woodman and Tidy, 1875, quotation from British Medical Journal, page 285.) The subject becomes even more complex when it is known that "the poison *muscarine*, which had been known as obtainable from a plant, the *Agaricus muscaria*, or fly fungus, has been discovered by Brieger to be a product of the decomposition of fish, and it has also been made synthetically by Schmeideberg and Harnack from choline. (Aitken on Animal Alkaloids.) Many of the cases of poisoning from eating fungi are due to the raw or imperfectly cooked varieties, or the fungus had been gathered by children, or by persons not sufficiently acquainted with their botanical characters to distinguish the edible from the non-edible, or an "edible fungus had been collected irrespective of the place in which it was found, its age, the conditions of the weather, or the length of time that elapsed after the fungus had been gathered before it was eaten was too great, all or any of these circumstances are said to occasionally produce ill effects." (Von Boeck.) If a mushroom containing an integral poison be eaten, the symptoms depend upon the amount of the dose and usually come on within an hour.

The symptoms of irritant poisoning that arise after eating flesh in a state of partial

decomposition are sometimes so pronounced and resemble poisoning from the mineral irritants so strongly that they have frequently been mistaken for them. The older authorities in cases of this kind were forced to conclude, after a thorough demonstration of the absence of the mineral and vegetable irritants, that the poison was developed during putrefaction, but neither the nature of the poison nor the manner of its production was understood, and such cases were described as sausage poison, cheese poison, etc. With the improvements in the microscope and the researches of Pasteur and Koch, the one approaching the subject from a chemical, the other from a botanical standpoint, we know that bacteria are engaged in the destruction of dead organic matter, and that the poisonous products that frequently arise in these substances are due to their presence. The following cases serve to illustrate this point:

(Taylor, page 515): "It appears that in November, 1859, sausages were made and sold by a pork butcher at Kingsland, and were eaten by sixty-six persons, of whom sixty-four were attacked with violent symptoms of irritation in from three and one half to thirty-six hours subsequently to the meal. One case proved fatal. No symptoms appeared in this man until after the lapse of six hours. He was attacked with severe vomiting and purging, followed by shivering; there was pain in the throat, violent headache, and great prostration. The pulse was feeble and quick, and there was marked delirium, and the eyes were red. These symptoms underwent a remission, but he had a relapse, became comatose, and died on the seventh day. Latterly he complained chiefly of pain in the bowels. Dr. Letheby found on inspection no signs of inflammation of the stomach. The small intestines were much inflamed and the gall-bladder was distended. The other organs were healthy. The viscera contained no vegetable or mineral poison, as shown by a careful chemical analysis. There could be no doubt that the sausages caused the symptoms and death, the food in this case acting as a narcotico-irritant poison."

(Taylor, page 516, 1875): "Four members of a family of a shepherd were attacked with symptoms of irritant poisoning after eating a



portion of mutton which had been given them. The father and mother suffered severe pain after the meal, and the latter had an attack of severe vomiting and became insensible. The children were seized with violent vomiting and purging, and the boy died three hours after the meal. On inspection the mucous membrane presented patches of inflammation, and there was inflammation of the peritoneum. No trace of either vegetable or mineral poison was found upon analysis, either in the stomach and contents or in the food."

(Reese, page 366): Putrescent or decayed meat, if eaten by man, may excite symptoms of a typhoid character or septicemia, and sometimes symptoms resembling cholera.

*The Ptomaine Theory.* The algae and the fungi known under the common name of thallophytes are found lowest in the scale of vegetable life. The algae contain a substance called chlorophyl, and in this respect resemble the higher plants because they manufacture their nourishment out of simple inorganic substances. The fission fungi or bacteria as a class differ from the algae, in that they contain no chlorophyl. The bacterium viride and bacillus virens have been found recently to contain chlorophyl. Bacteria are able, because of this absence of chlorophyl, to live only at the expense of organic matter. During their existence they produce changes in this organic matter which constitute the phenomena of fermentation and putrefaction. Bacteria are found everywhere there is organic matter, though as a rule they are less abundant in the higher altitudes. Among the hundreds of known varieties some have been discovered whose presence in the body is the actual cause of disease, though the vast majority are to be regarded as scavengers, transforming dead organic matter into inorganic matter. In this way they serve to maintain the equilibrium between the animal and vegetable kingdoms, without which life would be impossible, as one kingdom would rapidly absorb all available material and very soon become extinct. Like the higher plants, bacteria grow best at certain temperatures. The most favorable temperature for many varieties being between 80° and 102° F. When the temperature is higher or

lower than these figures their vegetation and the formation of spores diminishes, and finally ceases altogether at very high or low temperatures. The soil best adapted for the growth of most bacteria is either vegetable or animal infusions or broths, no one soil being adapted to all forms, but the main constituent in all cases is albuminoid matter. When they come in contact with nutritive matter they bring about changes by means of diastases, and in this manner they obtain their nourishment. Bacteria are divided into two great classes, the parasitic, which feed on living plants or animals, and the saprophytic, which live at the expense of dead organic matter. These two great classes are variously subdivided; thus some that are normally saprophytic may under certain circumstances live as parasites, and the parasites have also the power of living at the expense of dead organic matter. In the process of putrefaction no one kind of germ is alone concerned, but there are several, and they may be very different at different times. It is thus apparent that the products resulting from the growth of bacteria during putrefaction depend not only upon the character of the germs but also upon the nature of the soil. We may therefore regard putrefaction as the sum total of the nutrition of bacteria at the expense of organic matter. During these processes urea is transformed into carbonate of ammonia, albumen into peptone, sugar is converted into alcohol, and when the amount of alcohol reaches a certain percentage the further action of this germ is prevented by its own products; and if the liquid remains exposed to the air the entrance of other germs, which are everywhere floating around, causes the conversion of the alcohol into acetic acid (vinegar). In addition there may be developed, as other products of decomposition in various fluids, sepsin, certain narcotics, leucine, tyrosine, indol, skatol, phenol, sulphuretted hydrogen, etc. Among the highly poisonous products developed during the life of bacteria are the ptomaines, certain other poisonous products, whose nature is less understood than the ptomaines, that are called toxalbumens, and finally other poisonous products called bacterial protean. The ptomaines are of the greatest interest to the practical physi-

cian, because of the similarity in chemical reaction to the vegetable alkaloids. It will be seen at a glance, from this rough sketch, that this new field, only recently opened up to the toxicologist, is entirely too large for us to venture a positive opinion as to what conditions of soil, temperature, moisture, etc., will enable germs at one time to elaborate highly poisonous principles, at others comparatively inert substances. Almost every day brings forth new discoveries, and, with the field already occupied with thousands of active workers, it is highly probable, ere long, that the circumstances under which they are formed and the nature of their reactions will be as thoroughly understood as the chemistry of the inorganic poisons. One fact in connection with the formation of these poisonous products during the process of putrefaction is, I think, sufficiently demonstrated, and that is, that in the early stages of putrefaction, long before there is any perceptible odor, the most poisonous bases are formed, and as putrefaction advances the toxicity of these poisonous products prevents the further growth of the germs engaged in their elaboration. The entrance and growth in the putrefying material of other germs cause a destruction of these highly poisonous products, and their place is taken by the final products of decomposition which are comparatively inert. "Highly poisonous products of decomposition found on the third day in putrefying material have completely disappeared by the eighth day." (Flügge, 573).

I could readily understand how these people might have been poisoned by *decayed* mushrooms (ptomaine poisoning), if it were proven that all had eaten mushrooms. Neither Mr. nor Mrs. Guthrie ate mushrooms, and the letter of Mr. Crabb, of Eminence, precludes the idea of mushrooms or mushroom sauce being mixed with the salad, as might have happened on the plates that the food was served in at the wedding. That the poisoning was due to an integral poison in the mushrooms is disproven, because the symptoms do not correspond to the symptoms of muscarine poisoning and other poisonous mushrooms, and also because the six cases mentioned above ate no mushrooms. That the principal cause of

the trouble was in the salad there can be no doubt, because, of the sixty-two cases recorded by Dr. Chenoweth, sixty ate salad, and two were uncertain, and of eleven guests who escaped, none ate salad. It is possible that other articles of food may have become infected from the same cause or causes that were at work in the salad. It has been stated, in opposition to this idea, that members of the family ate the giblets and soup made from the same chickens that were used at the wedding and were not made sick. This signifies nothing, as these articles were served *hot* and immediately after their removal from the source of heat employed in cooking them, whereas the chickens were boiled Monday afternoon and placed in covered vessels in the safe with some of the liquor yet on them; and, if I am correctly informed, two of the chickens, not being sufficiently done, were left with the other portion of the liquor in the iron pot and cooked again the next morning. The girl, Bridget Cain, after eating a portion of the chicken Tuesday morning, remarked that they tasted slightly bitter. That afternoon she was taken sick and developed the same symptoms and was as violently ill as any of the other cases. This was before the mushrooms were opened. The average temperature for Monday, Tuesday, and Wednesday, the time that elapsed between the cooking of the chickens and the fatal dinner, was 65°—the highest being 80°, the lowest 49°. The conditions were certainly favorable to decomposition: a warm kitchen or pantry, a warm outside temperature, an animal broth contained in a vessel and set aside in a safe; this, while closed sufficiently to retain heat for a considerable time, was not tight enough to prevent the entrance of air and along with it bacteria. The ptomaines obtained from the salad in my previous analysis did not give reactions that responded to the usual tests for the known ptomaines, but that they were poisonous was evidenced by the fact that one cubic centimeter of the diluted extract killed a full-grown hen in less than half an hour. Unfortunately, when I first began this examination, the tests necessary for the mineral poisons consumed so much of my material that I had but a small portion left. These I divided, testing



one portion for cantharides, another for the vegetable alkaloids, and the remainder for putrefactive alkaloids, and the final extract was so small that I had barely sufficient for the chemical and physiological tests, and therefore made no attempt to obtain the alkaloid in a pure form.

*Septic Infection.* If we introduce into the body of a healthy animal putrid material free from germ life, the symptoms that occur depend upon the nature of the products, and also upon the amount of the dose. On the other hand, when we introduce into the body of a susceptible animal living bodies capable of undergoing multiplication at the expense of their host, the symptoms are entirely independent of the amount of the dose.

When I first began this examination I made a microscopic examination of portions of the salad. While searching particularly for crystalline substances, I was struck with the immense amount of bacteria present. I stained several cover glasses in methyl-blue, and under higher powers of the microscope made out all the forms shown in the following diagram :



Fig. 1. Organisms from the Salad. (Reichart, 1-15 H. I.)

The organism to which I desire to call particular attention is the bacillus, shown most prominently in the plate. These bacilli were rounded at the ends and were single or united in chains of two or three. They varied in length from two to eight micro-millimeters, and in many instances contained spores either toward their middle or at one end. I had made stabcultures from the contents of the bowel of Mrs. Guthrie, taken from a small

portion of the gut which I had included between ligatures and taken immediately to the University. These cultures, when examined microscopically, showed various forms of micro-organisms, among which I recognized the same bacillus. I succeeded in separating these organisms, and grown in gelatin they liquefied the gelatin and developed a peculiar fetid odor. Inoculated into the bodies of two mice they produced fatal results. I am at present engaged in the endeavor to separate the ptomaine of this bacillus, but have not as yet succeeded because I have found all my cultures contaminated with a coccus. Longitudinal and transverse sections were made of the kidneys, liver, and spleen of both subjects. The cortical substance was thick and mottled with red, and very much congested. The pyramids were red. After section by microtome and examination by microscope there was evidence of congestion, an emigration of the white cells with diapedesis of the red. There was also swelling of the renal epithelium and structural changes in the glomeruli. The blood in the large renal vessels was also examined, and showed structural changes in the red and white corpuscles. Under high powers of the microscope, after staining by Gram's method and contrast in eosin, the emboli in the capillaries of the kidney were found to consist of masses of bacteria similar to those found in the salad. The glomeruli had in many places undergone partial obliteration.

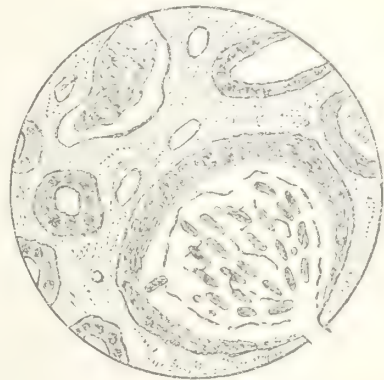


Fig. 2. Section of Kidney; Fatal Case. (Reichart, 1-15 H. I.)

*Liver.* Sections were also made of portions of the liver. After staining by Gram's method and thoroughly decolorizing, the sections

showed in many places the blood-vessels filled with bacilli of the same shape and size found in the kidneys. In places they had escaped



Fig. 3. Section of Liver; Fatal Case.

into the tissues through the ruptured blood-vessels. In other sections the emboli in the capillaries of the liver (spleen, and also the kidneys) was found to consist of masses of cocci. Around these areas the liver cells were found in various stages of necrosis; in many the nuclei did not stain, and in places there was marked pigmentary degeneration. The bacilli found in these organs were elongated, and in many places in a state of spore formation. According to the source of the intoxication through bacterial products there are certain symptoms which admit of classification. It is a well-known fact that poisoning by most of ptomaines is attended by a subnormal temperature, and on the other hand, when the poisonous agent is an extractive, the rule is an elevation of temperature. I presume it is not unwise to infer that we may have a succession or combination of these conditions, according to the combination or alternation of these products or to the predominance of the one over the other. I believed, after a careful study of the symptomatology of these cases, that the illness was of bacterial origin. With the evidence as obtained, the extensive ulceration in the large and small intestines, the exclusion of arsenic and other mineral and vegetable irritants by thorough chemical analysis, the discovery of bacterial products in the salad (three days after the wedding), the recognition of pathogenic and saprophytic organisms in the salad, the discovery of many of the

same forms in the bowels of Mrs. Guthrie, with others that may have had a secondary influence, and, lastly, the finding of the same bacilli and cocci in the tissues of the liver, spleen, and kidneys, forming emboli in the blood-vessels and imbedded in the tissue; these facts, taken in connection with the clinical history (seventy cases in all, with a period of incubation preceding the illness of not less than four hours in a single case and in many as late as eighteen to twenty hours after the dinner), leave no room for doubt that the cause was the ingestion of a culture of specific bacilli contained in the salad. The growth and development of these organisms in the stomach and bowels of these people produced the bacterial products, the absorption of which into the system gave rise to the constitutional disturbances. The action of the organisms and their products produced inflammation and destruction of the mucous membranes of these organs, causing acute gastro-enteritis, and through the exposed mouths of the blood-vessels and lymphatics the organisms were carried into the system, locating in various organs and starting new foci of infection. An organism similar to this bacillus was found in the liver and kidneys of several fatal cases in the epidemics produced by putrid meat at Welbeck in 1880 and at Nottingham in 1881. The organism was discovered by Prof. E. Klein, of London, and he describes it as the "bacillus of choleraic diarrhea from meat poison."

#### TESTIMONY BEFORE THE CORONER.

Dr. James S. Holloway thought the sickness due to spoiled mushrooms; had no idea what a ptomaine was until afterward.

Dr. Moses Collins thought the sickness due to mushrooms.

Dr. James S. Chenoweth thought it due to decomposition in the salad.

Dr. P. B. Scott thought it due to ptomaines.

Dr. T. Hunt Stucky thought the sickness was due to an irritant, probably of a vegetable character.

Dr. Wm. L. Rodman: Symptoms did not resemble those of arsenic poisoning.

Mr. J. A. Flexner (Evening Post, June 10, 1891) testified as follows: "Am in the drug



business and do some analytical chemical work. Examined the vomit of one of the patients and some urine. Made a hurried test of vomited matter, and found what appeared to be an evidence of arsenic. The urine was then brought in and I dropped my work on the analysis of vomit. Used Reinsch's test in analyzing the urine. Found less than a ten-thousandth part of a grain of arsenic in urine, but the trace was unmistakable. The copper was covered less than ten minutes after being placed in contact with the urine. Got a characteristic octohedron crystal. Found traces of arsenic in vomit. Dr. Anderson had administered bismuth to patient whose vomit I examined. I examined a portion of the bismuth given and found no arsenical adulteration. Dr. Irwin brought me some copper slips which yielded an arsenical sublimate. Examined none of the food of the feast. The most prominent feature of the symptoms of arsenical poisoning is its variableness. The witness cited a case where a child who had swallowed arsenic was not taken ill for three or four hours afterward."

Dr. Turner Anderson had rather inclined the belief that the patients were poisoned by arsenic until the result of the analysis at University were made known. Since then his views had changed.

Dr. J. W. Irwin (Louisville Commercial, June 10, 1891) testified as follows: "Had treated Mrs. Herr and six other people who were ill from the feast." In all cases the symptoms pointed to arsenical poison, and in all cases he had administered castor oil and magnesia, and gave his reasons for doing so. Dr. Irwin's theory is that there was arsenic placed in all the food. The doctor discussed at some length the ptomaine theory, and insists that it is absurd.

Dr. Wm. Bailey did not think patients were suffering from arsenical poisoning. Had seen two cases.

Dr. D. W. Yandell had seen several cases. There were some symptoms like those of arsenical poisoning, but the arsenic theory was negatived by the history of the cases.

Dr. T. L. McDermott had seen one case. He did not think the illness was due to arsenic.

Dr. H. A. Cottell had seen two cases. The symptoms were not those of arsenical poisoning.

Mr. Albert Shoettlin, druggist, had examined specimens of copper-foil brought to him by Dr. Irwin; he also made a rough test of urine. A deposit was found on copper which was thought to be arsenic. A portion of the first foil was given to Mr. Flexner, who found arsenic. Another portion of the same strips was given to Dr. Kastenbine, who found that it was not arsenic but sulphur. Witness accepted Dr. Kastenbine's opinion as the right one.

Dr. Kastenbine had examined chicken salad, milk, water, and earth about the spring, and found no evidence of arsenic or other mineral poisons. He had also examined various dejecta and urine for arsenic, and found none. Tested strips of copper sent him by Dr. Irwin and found no arsenic on them, but sulphur. Witness had also tested milk for tyrotoxicon. Witness thought the poisoning came from mushrooms. It was not in the chicken salad, because he had extracted the oleaginous portion of the meat by ether and eaten some of it without symptoms of poisoning. [Of course this would have made the meat innocuous.]

Dr. John L. Howard thought the poison due to ptomaines.

Dr. H. M. Goodman. (Testimony already given.)

The testimony before the coroner's jury developed some peculiar phases of psychological and forensic medicine. In the first place the inquest was badly conducted. Coroner Miller, actuated solely by the desire to obtain the truth, did too much admitting in evidence the opinions of all who had opinions, and these were legion. The jury, composed entirely of gentlemen taken from the mercantile walks of life, while all men of more than ordinary intelligence, were totally unacquainted with the technical reasoning of the case, and, confused by the mass of argument, did just what I should have done under the same circumstances, saying "We don't know," admitting that minerals were excluded. Nor do I blame them; for, compelled to listen to conflicting evidence, the absurd arguments, the unreasonable reasoning of layman, doctor, and expert, it is remarkable

that they had heads clear enough to render the above verdict. To the credit of Coroner Miller and his jury, it must be said that they did their duty, and did it nobly, and their names should be emblazoned in golden letters on the pillars of fame as martyrs to science. The advocates of the arsenic theory attempted by every means in their power to prove that the poisoning was due to that substance. The fact that in arsenical poisoning the symptoms develop under an hour, and that in all severity of these cases no symptoms came on in a single case under four hours, and in many instances were delayed to eighteen or twenty hours, was entirely lost sight of, and it was attempted to show the jury that the exception had become the rule, and from sleep, full stomachs, etc., symptoms had been delayed. None of these people went to sleep before 10 o'clock that night, and consequently that argument did not hold. Again, the reported finding of traces of arsenic by two advocates of this theory was thought by some to be conclusive, and therefore there could be no doubt of its truth. The finding of arsenic in the dejecta of his patient by means of a copper slip, where the deposit was considered sufficient evidence that the substance was arsenic, performed with drug-store chemicals and telephone copper wire, the subsequent sending of it to a chemist who completes the sublimation, finds crystals in the sublimate, pronounces them arsenic, gives that as his opinion before the jury, knows nothing of the purity of the chemicals or the caution with which the preliminary steps of the operation were performed, is evidence most sublime. The testimony of the same chemist, who reports finding arsenic in the urine and vomited matter of patients of another doctor, can be disposed of equally as quickly. The testimony of the physician on the stand, that the bottle in which this urine was contained may have been one that contained Fowler's solution, which the patient had been taking for some other trouble, of course completely invalidates the evidence as to arsenic in the urine. With reference to the vomited matter from another patient, it is shown on the file at the drug store (April 16, 1891) that this patient was taking a prescription containing bismuth. This bismuth was the same

specimen that was found in our analysis to contain traces of arsenic, and of course the bismuth was contained in the vomited matters of the patient, and would have shown in any test applied to those vomited matters for arsenic.

In support of the mushroom theory several cans of these edibles which had been opened were arrayed in an imposing manner, and the jury were regaled with statements of how mushrooms might have produced the same symptoms. This statement was met with the assertion that if the mushrooms were decomposed that the poisonous products were those of bacteria and not due to an integral poison in the mushrooms. When asked how many mushrooms it took to poison a man, the witness stated two tablespoonfuls at the least. He was then asked to explain how it was possible for the gentleman to be so poisoned who testified that he had only eaten a ham-sandwich and a cup of coffee? The answer was that some of the mushroom sauce got on the bread. It will be seen at a glance that if two tablespoonfuls of mushrooms are required to produce any poisonous symptoms whatever, that it was not possible to have the small amount of sauce on a sandwich so concentrated as to poison a man, especially when there were only six cans used at the wedding. Witness was then asked to explain the case of Bridget Cain, who ate chicken before the mushrooms were opened, and the Eminence cases, who ate only salad, and he admitted that he could not do so.

Before closing this article I desire to state clearly and precisely my position in this matter. It has been stated by certain parties that they intended to prove that these cases were poisoned by arsenic in spite of every thing.

Every unfortunate occurrence of this kind always develops a lot of embryonic chemists and toxicologists, who are more or less persistent in forcing their opinions upon the public for the sake of the newspaper notoriety they hope it will give them, and this in face of facts and results obtained by men who have spent the greater part of their lives in work of this kind. They lament the fact that no *post-mortem* was held upon the late Mr. Guthrie, and attempt to place the blame upon the



attending physicians and Coroner Miller, when to my personal knowledge these gentlemen used every means in their power to obtain an autopsy, and were only prevented by the strenuous resistance of the family and the early arrival of the undertaker. Because of this failure to obtain an autopsy on the body of Mr. Guthrie, it is argued that too long a time elapsed before the death of the others, and that all of the arsenic would have been eliminated.

I analyzed the urine and dejecta of Mrs. Guthrie on the second and third days, and if arsenic had been in her system and was being eliminated I would have detected it; if it was not undergoing elimination it would have remained in her system and I would have discovered it after death.

It is also exceedingly strange that none of the sixty-three cases of which we have records, and which have since been under close scrutiny, have developed the usual sequelæ of arsenical poisoning, that is, general emaciation, ulceration and gangrene of the skin, edema, anesthesia, and paralysis, gastralgia, dyspepsia, and chronic intestinal catarrh. Five of the cases reported before a medical society showed all the classical signs of arsenical poisoning, including such symptoms as alopecia, inflamed and watery eyes, headache and giddiness, jaundice, eczematous eruptions, salivation, and excoriation of the tongue, angina, etc. Unfortunately, however, these symptoms occur in *chronic* arsenical poisoning, where individuals have been exposed to the fumes of arsenuretted hydrogen or have been taking arsenic for some time in small doses, and are not the usual sequelæ of acute poisoning. It will be admitted that these people were acutely poisoned; and even had they developed such symptoms it would have signified nothing, as they are just as likely to develop after ptomaine poisoning.

"With reference to the false impression that has gone abroad, that the chemists of this city were unable after thorough and careful investigation to tell the difference between mineral poison and poisons of a putrefactive nature, that this has made them the butt of ridicule by the profession in other cities, and they are getting sore and indignant over the unjust accusation. The main fact was sent abroad that 'the jury

could not agree upon a verdict.' The truth is that the jury did agree to a man, and not one of them has yet denied that they were unanimous in their opinion that the poison was not mineral and therefore not criminal. The medical profession of Louisville are almost unanimous in the same opinion, there being only one of the city physicians who treated any of the cases who holds to the arsenic theory. There were seventy poison cases treated by twenty-one physicians. One of these physicians, who treated five of the cases, arrays himself against the other twenty physicians, who treated sixty-five cases, and declares that his five cases were poisoned by arsenic, and that he 'can bring affidavits to prove it.' One doctor and one chemist stand opposed to twenty doctors, the cream of the profession in this city. Every man on the jury said at the time, and says now, as does the coroner who held the investigation, that arsenic had nothing to do with the poisoning. No one undertakes to impugn the motive of the obstinate gentleman who refused to sign the official verdict in this very important matter and to stand by his expressed convictions, but it is believed that his refusal to join with the others in a verdict was prompted by reason of 'kindness and good intentions.'" (Ed. Evening Post, June 22, 1891.) If there had been any criminal motive in this wholesale poisoning, it could not have failed to have been discovered. Having made this investigation in the interest of science, humanity, and justice, with absolutely negative results so far as any mineral or vegetable poison is concerned, I am compelled to accept the explanation of this sad affair as already stated.

LOUISVILLE.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION will hold its first annual meeting at the Hall of the College of Physicians, corner Locust and Thirteenth Streets, Philadelphia, Pa., on Thursday, Friday, and Saturday, September 24, 25, and 26, 1891, under the presidency of Dr. G. Betton Massey.

Physicians interested in the discussion of electricity and medicine are invited to attend without further notice.

HORATIO R. BIGELOW, M. D.,  
Chairman Executive Council.

## Societies.

### THE ACADEMY OF MEDICINE AND SURGERY, RICHMOND, VA.

Stated Meeting, June 2, 1891, President Charles M. Shields, M. D., in the chair.

In a paper read by D. A. Kuyk, he said that electricity undoubtedly was the wonder of the world, and is yet in its infancy. The phenomena of diffusion, as produced by electricity, are exceedingly complex, and he doubts if we have sufficient warrant to use the term anodal diffusion exclusively. For instance, iodide of potassium, if put on the negative pole or cathode, diffuses quickly through the tissues, and we find free iodine at the anode. How can we account for the phenomena involved? When we speak of anodal diffusion we at once specialize too much, thereby contracting the utility of the very element for which we desire almost universal use and applicability. He therefore suggests the name electrical diffusion.

The idea prevails that diffusion is obtained only by means of the galvanic or continuous current, whereas the faradic or interrupted current certainly has the same power, though, perhaps, not so intense; and probably, by recent improvements and those continuously being made in the administration of Franklinic or static electricity, this change may be also effected. Here is a field for original investigation absolutely without limit.

As to electro-physiology, he said that the main obstacle to the passage of an electric current is the resistance of the substances through which it is sent. That of the skin is three hundred times as great as that of all intervening tissues. When a current has passed through any body for a short time the resistance rapidly diminishes. This is due to increased hyperemia and succulence of tissues permeated by the current or to the electrolytic arrangement of the molecules in the track of the current. In this respect the galvanic exceeds in strength the faradic current. Certain chemicals facilitate the transmission of the electric current, such as salt, and perhaps the iodide of potassium, iodine, etc.

Electricity, applied to a certain degree of

strength, stimulates the motor nervous system, increasing its action, hastening the circulation by its action on the muscular fibers of the arteries, producing a temporary paralysis of the vaso-motor nerves, as shown by the hyperemia. The lymphatic system is also thus stimulated to increased activity. Indeed, all the normal functions become exalted, every thing seeming favorable to a rapid absorption of whatever medicament may be used. Hence has arisen the utilization of the electric current, substituting a rapid, deep, and complete absorption for the formerly slow, superficial, and imperfect method.

The galvanic current is preferable because of its greater electrolytic action; the positive pole, because through it the current enters the body, though the catalytic action is greater at the negative pole. Again, acids and oxygen appear at the positive pole, and this, by the formation of readily soluble salts, may account for the diffusibility of drugs applied beneath it.

He quoted the opinions and experiences of a few authorities upon this subject. Wacksner, of Berlin, writing upon the "Effect of Electrical Induction Current upon Subcutaneous Injections," says: "It is evident that by causing (immediately after injection) a series of strong muscular contractions and relaxations an accelerated action of the blood-stream will ensue, and the foreign substance injected will be more rapidly absorbed and also more thoroughly. The muscular contractions are most effectually produced by means of the induction current. The most powerful muscles, such as the glutei or latissimus dorsi, are selected for the injections; the skin over them having been previously moistened by a warm salt solution, the positive pole is placed near the point of injection, while the negative is stroked over the puncture."

A majority of electricians prefer the continuous or galvanic current

In order to present a paper of undoubted value, Dr. Kuyk wrote to some prominent men in this field of medicine, and quoted some of the replies.

Dr. A. D. Rockwell writes: "It is pretty well understood that pain is often greatly alleviated by the introduction of anesthetic rem-



edies into the system by means of the galvanic current; and that effusions and glandular swellings are more successfully treated when certain medicaments are used upon the electrodes, I am inclined to believe.

"Electrolysis will sometimes entirely dissipate a goitre, for example, and will almost always reduce it more or less, and it becomes somewhat difficult to distinguish between the simple electrolytic action of the current and the absorptive effect of the remedy introduced into the system. A case that lately came under my observation, however, made it pretty evident to my mind that the so-called anodal diffusion might be more valuable in these cases than has been believed. The goitre to which I allude had been treated only by external applications, as the patient would not consent to the introduction of needles. The first ten applications, administered in the course of six weeks, resulted in a marked diminution of the tumor; but, although the treatment was continued for three months thereafter, twenty-five additional applications being made and with increased current strength, no further reduction took place. It then occurred to me to use iodine in connection with the positive pole, although I attempted it with little enthusiasm, since in former cases I had been disappointed in its use. The result has been exceedingly satisfactory, although a greatly decreased current strength has been used. Six milliamperes has been the limit of the strength of current essayed in connection with the iodine treatment, while without it I frequently gave as high as twenty milliamperes. It is now six months since anodal diffusion was begun, and the applications administered by this method amounted to thirty-six, and there is hardly a vestige of the tumor remaining.

"In the extraction of hairs by electrolysis I have been accustomed to utilize the anesthetic effects of cocaine by the method of anodal diffusion. The upper lip is very sensitive and the loose parts underneath the chin, especially near the median line, and the pain is often unbearable. Anodal diffusion, with cocaine, ameliorates greatly the pain of this operation.

"I have also obtained good results from its use in the treatment of neuralgia."

Dr. Henry G. Piffard, of New York, says: "A good deal of misapprehension exists as to this matter of cataphoresis, and a recent article in one of the journals tends rather to becloud than to simplify the subject. The inferences that the reader would naturally draw from the article in question are, first, that the medicated solution should always be applied to the anode or reophore supplying the positive current; and, second, that certain salts, such as the hydrochlorate of cocaine, iodide of potassium, etc., are diffused directly into the system by means of the electric current. There is no evidence whatever on which to base these assumptions. Salts in solution are electrolysed or decomposed by the galvanic current, and acids, oxygen, and alkaloids seek the positive, while alkalies and basic bodies seek the negative pole. Clinical experience agrees with theory, and shows that, if the anode be moistened with hydrochlorate of cocaine, the physiological effects of the drug will be manifested. In this case the hydrochloric acid remains at the reophore, and the basic cocaine penetrates the skin, which, in this case, acts as the negative. If, however, we desire to obtain the iodine effects from the iodide of potassium, the cathode, not the anode, should be moistened with the solution.

"The possibility of cataphoresis has been denied by some, but the writer's experiments, made many years ago, satisfied him not only that many drugs could be introduced in this manner, but also that the method has little practical value. Anesthesia by the 'anodal diffusion' of cocaine may prove a novelty to the patient, and impress him accordingly; but a few drops of the solution injected with a hypodermic syringe will answer all practical requirements in the great majority of cases."

Dr. Wm. James Morton says: "You will find in the New York Medical Journal of April 25, 1891, a short article by me, which may give some suggestions and render needless my writing now in full. I have brought out in that article several new points, viz: (1) Anemic cataphoresis; (2) simple cataphoric plaster; (3) a simple and new electrode, conducting on both sides; and (4) the method of employing the medicine on both poles.

"I do not believe the term 'anodal diffusion' a good one. It does not seem to me to cover the entire ground. True, there is anodal diffusion; but granting that, we must also grant cathodal diffusion, for the migration of the ions in all electrolytes takes place in both directions. That is why I say, in practice put the medicine on both poles; though if one cares to be more accurate, he could select his medicines appropriate to either pole—that is to say, he could in some cases. This, I think, would only be a refinement, which, in the present state of cataphoric medication, would lead to needless confusion.

"Of course our views as to what takes place in the intra-polar region in cataphoresis and electrolysis are mainly hypothetical. At the poles themselves it is otherwise. There we know that the respective constituents of a binary compound, the ions from an electrolytic point of view, bump up, so to speak, against the faces of the electrodes, and collect there. The fluid has constituted an electrolytic circuit and necessitated electrolytic conduction; the metals of the electrodes, on the other hand, necessitate metallic conduction, and the moving elements in the fluid can not climb along a wire; therefore they are arrested where metallic conduction begins.

"Now, since the field of action in cataphoresis is from metallic face to metallic face of each electrode, and the fluid which is in action is not only the part of the body included, but quite as much the particular fluid medicine on the absorbing surfaces of the electrodes, it follows that we have a compound electrolyte; and to properly understand and apply the method we must study it, not alone from the mechanical point of view of electrical osmose or cataphoresis, but also from the point of view of electrolysis and electro-synthesis.

"I can, perhaps, make my position that the process is chemical, electrolytic, and not entirely mechanical or cataphoric, clearer by two statements quoted from Logge:

1. "Electrolytic conduction is invariably accompanied by chemical decomposition, and, in fact, only occurs by means of it.

2. "The electricity does not flow through but with the atoms of matter, which travel

along and convey these changes something after the manner of pith balls.'

"There is one point to which I might call your attention. This is the slow rate of travel of atoms through water under a propelling electro-motive force of one volt per linear centimeter. Hydrogen travels at the rate of 1.08 centimeter per hour; potassium, at the rate of 0.205 centimeter per hour, and so on. This would indicate that ample time should be given to get full cataphoric effects.

"I am about to make some new experiments as to the efficacy of the Franklinic interrupted current of the electro-static machines to carry medicines through the skin. My experiments with such currents thus far have not given me noteworthy results."

In the article referred to by Dr. Morton, he describes his method of "anemic cataphoresis" by which he claims to localize the effect for that part alone for which it is intended. He cuts off the blood-stream from the part to be treated by an Esmarch bandage or a rubber ring, or when these can not be applied, the same result is obtained by compression with the narrow edge of a disc-shaped electrode. He uses medicated plasters in measured dosage, thus rendering special electrodes unnecessary. He finds his method serviceable in gouty and rheumatic joints. He quotes the case of Dr. Lewis A. Sayre, whom he has treated by this method, the swelling at his wrist-joint having been reduced one half an inch; the pain disappeared, and considerable movement was obtained where before there was none. And all of this accomplished within a few days. Nothing up to this time had done as much.

Dr. James N. Ellis reported a case of extroversion of the bladder, with congenital absence of the vagina and external organs of generation, that came under his observation as physician in charge of the Surgical Department of the City Dispensary. The anterior aspect of the posterior wall of the bladder was as a pouting, red mucous surface, between the umbilicus and pubis, somewhat elliptical in outline, with two small teat-like projections near its center corresponding to the openings of the ureters, from which the urine was discharging drop by drop. In the absence of any thing resembling



a penis or testicles, it is assumed that the child (three years old) is a female; but, on account of her tender age, no attempt was made to determine the existence of a uterus. The general health and nutrition of the child seem good, and she is bright, pretty, and intelligent for her age. The inconvenience otherwise resulting from the constant dribbling of the urine is obviated by the use of cloths, that are removed when saturated and replaced by fresh ones. The formation of an artificial vagina for the exit of the menstrual flow will be doubtless necessary at puberty, but until then operative interference promised but little relief.

Dr. John N. Upshur said that he saw a case of extroversion of the bladder in an adult male when a student at the University of Virginia. The testicles were normal and the penis well developed; but the urethra was cleft, exposing its bare mucous membrane back to the point at which it disappeared in the scrotal tissues. His sexual instinct was unimpaired, and he frequently suffered from violent erections.

JULY 7, 1891: Dr. Hunter McGuire spoke from notes on Cataphoretic Treatment of Goitre by Iodine; of Chronic Orchitis; of Uterine Fibroids, etc.

About six months ago Dr. Waite, of the firm of Waite & Bartlett, of New York City, gave him a cup-shaped electrode, and demonstrated the fact that by its proper use with a galvanic battery a solution of the muriate of cocaine could be driven into the skin and complete local anesthesia produced. A small piece of absorbent cotton, or piece of blotting paper, saturated with the solution of cocaine, was put into the shallow cup of the instrument, and the electrode attached to the positive pole of the battery. The electrode was then placed upon the skin where the insensibility of anesthesia was desired, and the sponge on the wire joined to the negative pole was placed on some convenient neighboring part.

It required a current of four or five milliamperes to drive the cocaine through the skin and make the anesthesia complete, the insensibility extending for some distance below the surface of the skin.

A day or two after the above demonstration was made (about January 10th of this year), a case of enlargement of the thyroid gland came into his hospital (St. Luke's). The goitre was bilateral, old, very large, hard, and seriously interfered with respiration. It had resisted for years the ordinary treatment of such growths. Internally, the iodide of potash, iron, and mercury had been faithfully tried; and externally, at different times, iodine and biniodide of mercury frequently used. The goitre steadily grew; and, lately, its increase was so rapid that the lady, in great alarm, came to the doctor to ask for some surgical operation. She had spasmodic attacks of palpitation of the heart, frequent spells of giddiness or vertigo, but no ocular protrusion.

Instead of attempting the removal of the gland he determined to use iodine in the cup-shaped electrode and see what effect it would have on the growth. The doctor put in the cup of the electrode some absorbent cotton first dipped in water and squeezed as dry as possible; and on the cotton he poured ten or fifteen drops of the tincture of iodine. The electrode, thus prepared, was placed on the most prominent part of the goitre, the negative pole on the back of her neck. The galvanic current was then turned on until the milliamperemeter showed the strength of six or eight. This current was kept up for ten minutes. While using it she said that she tasted the iodine, and afterward that this metallic taste in her throat lasted for hours.

When the electrode was removed, the cotton was found simply stained with the iodine, but most of the iodine had disappeared.

This application of electricity and iodine was repeated every day for three weeks. Not always, but nearly every time she said that she tasted the iodine, and said that this was the most disagreeable part of the treatment. The tumor gradually grew smaller, at first quite rapidly, but afterward more slowly, getting more and more indurated as it contracted. The cardiac and cerebral symptoms disappeared completely.

This patient, after three weeks, was called home by the illness of her child, and did not come back for a month. The goitre, however,

continued to decrease while she was absent. When she returned the applications were again made daily for three weeks. The gland was reduced to about one fifth of the size it was when the treatment was begun, and in spite of all further use of the remedy remained stationary. But all of the subjective symptoms were gone, and the lady left in excellent health.

Two other cases of chronic goitre were treated in the same way, and with the same results, the hypertrophy diminishing rapidly at first, then more slowly, then reaching a point when it became stationary.

In four cases of recent hypertrophy of the thyroid gland in young women the enlargement rapidly disappeared under the use of these measures.

Iodine and electricity have of course been long used for goitre. As to how much of the good obtained above is due to one or the other of these agents the speaker does not know.

Lately, in a case of pronounced exophthalmic goitre, he used this treatment with quite rapid diminution of the enlarged thyroid gland and a decided amelioration of the other symptoms. The tendency to syncope and dizziness were lessened and pulsation of the arteries diminished, but no perceptible change in the ocular protrusion resulted. The case is too recent, however, to report.

In several cases of chronic inflammatory enlargements of other parts the doctor has used this measure with very positive good.

In a case of chronic orchitis it acted promptly and decidedly.

The treatment of fibroid tumors of the uterus by electricity, after the manner of Apostoli, is used by many surgeons. No one who has tried it faithfully and patiently can have any doubt of its great value in very many cases. For several years the speaker has used it, and with very great good. Lately, when he could reach the tumor through the vagina, he has used iodine after the plan just reported, letting the current go as high as ten milliamperes only. He obtains very positive good in this way, and without pain to the patient. Under its use the bleeding will cease, the pain disappear, and the tumor grow smaller, just as well as when the electrode is introduced into

the cavity of the womb and the current made as strong as from one to two hundred milliamperes.

Dr. McGuire is now having constructed a small electrode, to see if hypertrophy of the tonsils can not be reduced in this way.

Of course, if it is valuable, it can be used in a great variety of ways and for many purposes. He has made some experiments with other medicines, but has not gone far enough to make any report.

If fluid medicated agents can be sent in this way into a growth, would it not be well to try this method of treatment in cancer in its early stages?

Dr. Charles M. Shields continued the discussion by reporting some cases of fibro-cystic goitre that he had treated with simple electrolysis. In these cases the tumor was not penetrated by the needle electrode; but the ordinary sponge electrodes were placed over it. The constant current from a wall cabinet battery was used, and about fifteen to twenty-five Leclanche cells employed. The sittings were from three days to one week apart, and the electrodes were kept in contact with the growth from ten to twenty minutes at a time, or as long as the patient could stand it without the skin being blistered.

In fibrous goitre Dr. Shields did not expect a great deal from electrolytic treatment, although he had always obtained some diminution of the growth; but in the form we are most frequently called on to treat, the fibro-cystic variety, he had invariably gotten good results. He reported three cases of complete cure, one of which well-illustrated the advantages of electrolysis as compared with the usual methods of treatment. This patient, a man aged about thirty, had been under constant treatment about five years before this method was used. He stated that in that period not a single day had passed without his having taken some absorbent medicine, applying some absorbent locally or having it injected or blistered. In spite of this constant treatment for five years it continued to increase in size and density. The electrolytic applications were made twice a week at first, then once a week, and continued for several months, with the result of com-



plete absorption. Dr. Shields believes that in electrolysis we have a most satisfactory method of dealing with goitre.

Dr. W. S. Gordon said that he had obtained good results in a case of cystic goitre from the use of Lugol's solution until iodism was induced. The diminution was decided, but not complete, when the patient was lost sight of. He had, however, succeeded in completely dissipating a fibro-cystic goitre by the means above mentioned. He cites these two cases to show that absorptives alone, without electricity, are sometimes efficient.

Dr. Landon B. Edwards reported two cases of forming goitre in females—one a lady of about eighteen, and the other about thirty-five—which he had cured by local applications of iodine. He directed that an impervious material, such as oiled silk, be worn as a collar over the applications of tincture of iodine, so as to prevent as far as practicable the dissipation of the iodine. In both cases he made a few hypodermic injections into the goitres of about a half grain of iodine dissolved in a weak solution of the iodide of potassium. He remarked upon the benefit of the combined use of the cataphoretic treatment by iodine and keeping the surface over the goitre well painted with iodine. Iodism has not been reported as a result of such plan of treatment.

Dr. M. D. Hoge, jr., said that he had suggested to a dentist that the use of cocaine by anodal diffusion might be successfully employed to diminish the pain incident to the extraction of teeth. The instrument used was a small piece of cotton saturated with a ten-per-cent solution of cocaine, which was held in a cup-shaped appliance and placed successively on each side of the gum opposite the tooth to be extracted. It took from three to five minutes (depending on the strength of the current) for complete anesthesia to ensue. The tooth was then extracted without pain.

Another possible use suggested by Dr. Hoge is in cases of fatty degeneration of the spinal cord. Why could not an alkali be introduced by means of anodal diffusion, and penetrating to the degenerated tissues make an emulsion of the fatty products?

Dr. Hunter McGuire, replying to questions

and closing the discussion, said that the local anesthesia from the anodal diffusion of cocaine lasted sufficiently long for operative purposes. When iodine is used, if the application is long-continued, or the current of sufficient strength, a blister will result. He has never used pure iodine, but always the tincture, and does not know if the electricity conducts it into the tissue as a vapor or in solution. He has used anodal diffusion in a great number and variety of cases not mentioned above, and is convinced that its field of usefulness is a large one. If, as is supposed, it is an agent that will conduct a medicament into the tissues and bring into intimate contact with the neoplasm, may we not reasonably hope, with its assistance, to so modify the cancer cell as to abort a beginning growth?

JAS. N. ELLIS, M. D.,

*Reporter.*

## Abstracts and Selections.

THE REMARKABLE EFFECTS OF DIURETIN IN REMOVING DROPSY.—Dr. Robert H. Babcock, of Chicago, reports in the New York Medical Abstract the following interesting cases:

1. Mr. B., aged sixty-two, manufacturer, corpulent, first consulted me January 27, 1890, for a troublesome intermittence of the heart's action. He considered his general health good, but, aside from disorder of the heart mentioned, there was small appetite and fermentative indigestion. Inquiry subsequently elicited the fact that for years he had been subject to attacks of pain beneath the manubrium sterni that were occasioned by the act of walking on days when the wind was easterly and raw. Without detailing the case, it will suffice to state that physical examination disclosed unmistakable signs of general arterio-sclerosis, with probable dilatation of the ascending aorta. Both aortic sounds were greatly accentuated and accompanied by a double, short, rough murmur, and the palm of the hand pressed over the aortic area distinguished a shock which at times assumed the character of a short thrill. The heart muscle appeared to be fairly sound. Analysis of the urine disclosed beginning degeneration of the kidneys; quantity, 1,200 cubic centimeters. Urea relatively and absolutely decreased; plain traces of albumen; quite abundant small and medium-sized hyaline casts.

Regulation of the diet and treatment, directed to lessening arterial tension and procuring gastro-intestinal antiseptics, gradually improved

his condition, although the heart's intermittency was never quite lost. However, he at length ceased to consult me until the first of March last. His reappearance boded no good, and accordingly I found his heart's action weak and arrhythmic, and edema had assailed his lower extremities. There was anorexia, together with obstinate constipation. He was ordered to keep to the house, and measures were taken to regulate the heart and invigorate the function of the kidneys. But all to no purpose. Hydragogue cathartics, digitalis, and caffeine exerted absolutely no effect on the dropsy, although the influence of the heart tonics in increasing arterial tension was combated with nitro-glycerine and nitrite of sodium. Edema steadily advanced upward until, at the end of a week, it had involved the genitals and invaded the peritoneal cavity. The heart's action was very bad, and attacks of cardiac asthma were frequent and violent, while a hard cough, with scanty serous expectoration, increased the suffering. Determining to waste no more time upon trials of old-time diuretic measures I ordered diuretin (Knoll) as a last resort. The remedy was begun Tuesday afternoon, March 10th, and ninety grains taken the first twenty-four hours, and subsequently one hundred and twenty grains a day for four days. The result was astonishing. From a pint and a half, during the twenty-four hours immediately preceding, the urine increased to twelve pints the next twenty-four hours, and, under one hundred and twenty grains of diuretin, to fourteen pints the second day, and eight pints the third day. At my usual visit that afternoon (Friday), I found edema had disappeared, excepting slight puffiness about the left internal malleolus. The following Monday there was not a trace even of ascites. All dyspnea had vanished, and the cough was no longer troublesome. There was, however, perceptible enlargement of the liver from passive hyperemia, and a week later the patient again resorted to diuretin for a couple of days, owing to a recurrence of slight ascites. At present he is about and in possession of far better health than for months prior to his illness. During the administration of the diuretin no other remedy was taken.

Although said not to exercise any direct effect upon the circulation of the pulse, it certainly in this and the following case manifested marked improvement, becoming of nearly a normal rate and perfectly regular for minutes together. This I was inclined to attribute to direct influence through diminution of arterial tension consequent upon the rapidly lessening venous engorgement, and hence improved circulation. And, indeed such may be the case; but, as will be seen in Case 2, the improvement in the rate

and volume of, the pulse seemed out of proportion to the diminution in the venous stasis. And if its congener, caffeine, enjoys the reputation of being a heart tonic and regulator, why may not theobromine possess like virtues?

2. Miss S., aged eighteen years, has been confined in bed for nine weeks with heart disease. First saw the patient on Tuesday, March 7th. Physical signs showed the case to be one of mitral disease, stenosis predominating. Heart's action rapid and irregular, and signs of venous stasis very marked. Edema involved the feet and legs nearly to the knees, and the enormously enlarged liver from passive hyperemia was giving the patient much suffering. The urine was that of renal congestion, and in quantity not much more than a pint in twenty-four hours. Besides sulphonal and chlorodyne *pro re nata*, ninety grains of diuretin were ordered in divided doses during the twenty-four hours, and continued for six days. The effect upon the kidneys was marked, although nothing like that observed in the first and third cases. It was difficult to collect all the urine, owing to involuntary micturition at times, but the amount passed could not have been less than six pints in the twenty-four hours. By the end of the sixth day the edema had practically disappeared. During the administration of the remedy the action of the heart became manifestly slower, stronger, and perfectly regular.

In this instance, I believe, the effect was not greater because of the interference with absorption produced by the portal obstruction; and so soon as the diuretin was discontinued the anasarca began to reappear. [Two other cases are given.]

*Conclusions.* 1. Diuretin (Knoll) is a diuretic of greater power and promptitude, suitable to all forms of dropsy. 2. Not increasing arterial tension, it is likely to succeed where digitalis, caffeine, and their congeners fail. 3. In cases of cardiac dropsy, with great feebleness of the pulse and arrhythmia, it will strengthen and regulate rather than depress the heart's action. 4. It appears to cause no irritation of the stomach or kidneys. 5. It required to be given to the extent of from ninety to one hundred and twenty grains daily, and preferably in small doses frequently repeated. 6. It is best administered either in solution in warm water or in gelatin-coated pills, since, if exposed to the air in powders, it undergoes change, with a precipitation of much of the insoluble theobromine.

CASE OF SEPTIC ENDOCARDITIS WITH CEREBRAL EMBOLISM.—Bessie E., aged ten years, was admitted to the Children's Hospital on March 25, 1890, under the care of Dr. Roué,



whom I thank for permission to publish the case.

For five or six weeks previous to admission the patient had suffered from pain in both shoulders, knees, and ankles, severe enough for her to keep to the sofa.

On admission, patient was free from pain in the joints, and no joint effusion or tenderness could be detected. On examining the chest, the apex beat was felt in the fourth left space, just outside the nipple line, and on auscultation a mitral systolic bruit was heard. The lungs, abdomen, and urine were normal. The temperature was  $99.2^{\circ}$ . The diagnosis was rheumatic arthritis and endocarditis.

The history of the case up to July 14th can be quickly passed over. The patient, in spite of all treatment, had recurring attacks of sub-acute arthritis of various joints, and became, as time went on, more and more anemic. The only important point to notice is, that on April 19th there was suddenly pain in the splenic region, but on palpation no enlargement or tenderness of the spleen could be made out.

At the beginning of July, on Dr. Roué going away, the patient came under my care.

On July 10th a double pericardial friction sound was heard over the innermost inch of the second left intercostal space. This persisted, but no physical signs of pericardial effusion ever developed.

In the evening of July 14th the patient suddenly screamed out and became unconscious. No convulsive movements were seen. On the next day the patient was partially, and on the following completely conscious. On examination it was found that the condition was as follows: Eyes normal in direction, and can be freely moved. Complete right motor hemiplegia—face, tongue, arm, and leg. Patient can not speak. There is no anesthesia of the right side. Patient understands what is said, and can see quite well with both eyes. The skin reflexes are normal and equal on both sides of the body. On the right side the tendon jerks are increased, and there is ankle, but no rectus clonus. In the fundus of the left eye two hemorrhages are seen—one to the inner and lower side of the disk, round and dark red; the other larger, to the outer side of the disk, round, with a white center. The edges of the disk are not clear. In the fundus of the right eye there are no hemorrhages. The edges of the disk are not clear. These appearances, it may be said, persisted up to the time of death. No definite optic neuritis developed.

The temperature, which up to July 14th had generally been normal in the morning, but going up to  $101^{\circ}$  and occasionally to  $102^{\circ}$  in the evening, went up to  $101.8^{\circ}$  at the time of the

attack, and never became normal again, generally varying from  $100^{\circ}$  to  $101^{\circ}$ .

The discovery of this retinal hemorrhage with a white center led to the opinion that septic embolism of a retinal artery had occurred, and this to the supposition that the rheumatic had passed on into a septic endocarditis with subsequent septic embolism of the left middle cerebral artery. As to the seat of embolism in the brain, two suppositions were open—embolism either of the first three cortical branches of the left middle cerebral or of its central branches, leading to lesion of the anterior two thirds of the posterior limb of the internal capsule.

The further progress of the case may be very shortly described. The right hemiplegia persisted, and in a couple of weeks slight rigidity of the right arm was added. The motor aphasia also persisted. The child never said more than "No" and "Very thirsty" up to the time of her death. At the beginning of August the patient began to move the right leg a little. On August 10th she suddenly became unconscious, with clonic convulsions of the left leg and right arm and leg, lasting a few minutes, and followed by rigidity in all the limbs. Three similar attacks of clonic convulsions recurred, and the child died in a couple of hours without regaining consciousness.

On making a *post-mortem* examination on the next day I found the following interesting appearances: In the abdomen the intestines were healthy, as were also the liver and both kidneys. In the spleen was a small old infarct. In the thorax the lungs were normal. There were 3ij of clear, yellow fluid in the pericardium, with a very slight deposit of lymph on the anterior surface of the right auricle and opposite surface of visceral layer of pericardium. This corresponded in position to the friction sound heard during life. Elsewhere the pericardium was normal. The right side of the heart was normal. On the left side the left ventricle was somewhat dilated. The aortic valves were normal. On the mitral valves, which were incompetent, were large vegetations, but with no positive sign of ulcerative processes. On the posterior surface of the dilated left auricle was a patch, as large as a shilling, of ulcerative endocarditis. (The heart, it may be mentioned, is in the museum of the Children's Hospital.)

On removing the brain, there was seen a purple blood-clot under the pia mater, over the inferior vermiform process of the cerebellum. The cerebral cortex was yellow in color. Scattered generally in the pia arachnoid, over the external surface of both hemispheres, were spots of yellowish lymph, in size varying from a pin's

head to that of a pea. The left Sylvian artery with its four cortical branches were normal, and contained no embolus, and there was no softening of any portion of the left hemisphere. On the right Sylvian artery was an aneurism as large as a small marble. The arteries beyond were normal, and contained blood, and there was no softening of the cortex supplied by them. On incising the brain there was seen a large clot in the right hemisphere, extending upward into the centrum ovale minus, downward nearly to the apex of the temporo-sphenoidal bone, destroying nearly the whole of the right caudate and lenticular nuclei and the internal capsule, and rupturing into the right lateral ventricle. No ruptured arteries could be seen. On the left side there was a fetid abscess with ragged walls, occupying the position of the anterior limb and the front half of the posterior limb of the internal capsule, extending outward into the nucleus lenticularis. The cavity was oval in shape, with its long axis measuring an inch and a half. Continuous with the blood clot in the left side of the brain was blood-clot filling up both lateral ventricles and the central canal as far down as the fourth ventricle, to the foramen of Magendie, through the roof of which it had passed and spread on to the surface of the inferior vermiciform process of the cerebellum, so giving rise to the appearance seen on examining the outside of the brain. This clot could be removed entire, forming a good cast of the lateral ventricles and central canal of the nervous system.

The rest of the brain was normal to naked-eye examination.

From the results of the *post-mortem* examination, it seems clear that the case was, as supposed, at first one of rheumatic endocarditis—during this time embolism of a splenic artery, with resulting infarct, occurred—and that it subsequently became a septic endocarditis. Then came suddenly septic embolism of a left retinal artery, producing a retinal hemorrhage with a white center, and of the lenticulo-striate branches of the left middle cerebral, producing a fetid abscess.

When embolism of the right middle cerebral occurred is not certain; but that it did seems most probable, for the aneurism of the right Sylvian and the rupture of the lenticulo-striate branches of the right middle cerebral were both probably the result of previous embolism.

The lesion of the right internal capsule was such that its effects corresponded exactly to those of the first three cortical branches of the middle cerebral, so that during life there were no means of determining which was the site of the lesion.—*F. H. Edgeworth, Bristol Medical-Chirurgical Journal.*

**TUBERCULIN.**—The question of the value of tuberculin in the treatment of internal tuberculosis, and especially of pulmonary phthisis, still attracts a great share of medical attention, and during the last three months numerous papers have appeared. The ultimate position of the treatment still remains uncertain, but a more extended experience seems to show that it will be but of limited utility. It was to be expected that the outburst of enthusiasm with which the announcement of Koch's discovery was received would be succeeded by a period of corresponding reaction. The pendulum has swung back in the opposite direction, but we may hope that it will shortly come to rest and the real value of the remedy be satisfactorily ascertained. In the face of the well-authenticated cases, relatively few in number as they may be, in which remarkable benefit, if not complete cure, has been the direct result of the injections, it is impossible to conclude, as some authors would have us, that tuberculin is incapable of doing good and too potent for harm to make its employment desirable. The dangers of the treatment seem to have been exaggerated, as with properly selected cases and careful watching during the administration of tuberculin there appears to be little risk of accident.

On the other hand, we have learned enough of the remedy to know that it must be used with circumspection; that although the evidence of its value in early pulmonary phthisis is too strong to be doubted, even in the early stage the results are often disappointing and occasionally bad, while in the advanced stages of the disease the ill effects more than counterbalance the advantages. In the accounts of cases it is often mentioned that after injection signs of consolidation were observed in parts of the affected or of the opposite lung, in which no signs of disease had been previously detected. These signs are taken as indicative of local reaction around foci of tubercle previously too minute for recognition clinically. Dr. Heron states that in his cases these signs all cleared up before the patients left the hospital. The point is an important one, and is often not brought out with sufficient clearness in published reports, as we require to be certain that this clearing up is the constant result before we can use tuberculin with confidence.

The official report of the German Government (which, however, it must be remembered, only went up to the end of 1890, and therefore only included the early experiences) was a disappointing one, after the hopes that had been raised. In this country the divergence between the opinions of different observers is very great. Some condemn the treatment altogether. Dr. Theodore Williams, for instance, thinks that it



is inferior to the ordinary methods of treatment. One of the chief hindrances to success is the difficulty of obtaining constitutional tolerance of tuberculin without the loss of the local effect on the lesions. Mr. Watson Cheyne, in his very valuable and moderate statement, recommends a continuous method of administration, by which he believes this result will be best attained. He also thinks that the remedy will prove to be of greater value in medicine than in surgery. His mode of administration would seem, however, to be inconvenient to carry out in ordinary practice, especially as he considers that, to insure a satisfactory termination in phthisis, the duration of treatment should be two years.

Under such conditions we may perhaps ask for the demonstration of more decided gains than have yet been shown. It seems probable, however, that further experience will show that tuberculin is the most potent curative agent we possess for certain forms of phthisis, and will bring out the best method of employing it.

Meanwhile, with regard to the line of action to be taken at present, in early cases of phthisis injections of tuberculin, combined with ordinary modes of treatment, seem to offer the best prospect of cure. Dr. Douglas Powell has pointed out that in early cases in which there are small tuberculous centers, with a catarrhal condition of the surrounding tissues, tuberculin may possibly hasten fibroid formation, but that, having obtained some success, it is not wise to continue the treatment too long, but rather to trust to hygienic and general measures to complete the obsolescence of the tubercles. In cases which have passed beyond the early stage it is more difficult to decide; but if the patient is steadily losing ground under the ordinary methods of treatment tuberculin should be tried after the conditions have been explained to him, as offering at any rate a prospect of amelioration. . . .

Dr. Arthur Ransome has carried out some experiments to test the influence of exposure to light, of fresh air, and of a dry soil upon the virulence of the tubercle bacillus. He selected two specimens of sputum—one containing few, the other many bacilli. Portions of each were exposed in three ways, (1) in a watch-glass, (2) in cotton wool cages, (3) in a flask arrangement with cotton wool. After exposure under the following conditions the sputum was injected into rabbits, and its virulence determined by its power of inducing tuberculosis in these animals. None of four specimens exposed to fresh air and light on a dry soil, in each of the three arrangements above mentioned, conveyed the disease, but one of three portions exposed in darkness to otherwise similar conditions produced tuberculosis. Of two

specimens exposed in the light on the window sill of a four-roomed tenement cottage in Manchester, situated on a clay soil, badly ventilated and without cellerage, one produced tubercle, the other did not. An identical result was obtained in the case of two specimens exposed in the same cottage, but in comparative darkness. A specimen exposed in the ventilating shaft from a ward of the Bowden Hospital for Consumption conveyed the disease, but a portion of the same, after ten days' exposure to the action of ozonized oxygen, failed to do so. Although the experiments were few in number, he thinks that the conclusion may be drawn that fresh air, light, and sandy soils have a distinct influence in arresting the virulence of the bacillus. Darkness interferes with this antiseptic action, but mere exposure to light in otherwise bad sanitary conditions does not destroy the virus.—*Bristol Medico-Chirurgical Journal*.

**TURN-TABLES.**—Among the mechanical devices employed by a large proportion of those who work with the microscope is the turn-table. In referring to the instrument one of the prominent microscopists of the present day says: "These turn-tables are as nice and neat and beautiful as can be imagined." To this I agree. But what is of still more importance is the fact that they are more convenient, useful and necessary than can be imagined. I think that those who mount specimens and finish the slides off without the use of the turn-table do not know how useful it is, or each operator would immediately purchase one. I am of the opinion held by the editor of the *American Naturalist* in 1876, when he wrote, "If the real convenience of the turn-table were known, it would soon become general."

All the turn-tables of the present day consist essentially of a disk supported on a perpendicular axis, so that it can be easily and rapidly rotated. A hand-rest is attached for the purpose of steadying the brushful of cement while it is applied to the glass slip, which can be temporarily fastened to the removing disk. The first turn-tables, which were made about twenty years ago, had the disk supported on a blunt rod; but as the man the of Stone Age learned to sharpen his weapon, so the manufacturers have found that the disk will turn more readily if the rod is pointed.

In looking over the price-lists and catalogues from the various dealers in microscope accessories, I find the following formidable list of turn-tables are on the market: Shadboldt's, with wood base, same with centering adjustment; Cox's improved self-centering; Standard; National, plain and self-centering; Griffith's self-

centering and decentering combined; Queen's comfortable turn-table; Kinne's self-centering; Congress self-centering; Beck's; Watson's plain and self-centering; National, volute and probably several others which I have not seen.

According to the price, turn-tables are divided into two great classes, self-centering and plain. By self-centering is meant that a slide which has been ringed on the turn-table can be again placed in exactly the same position without trouble. This is a convenience when more than one coat of the cement must be applied to a cell. In the mounting of opaque objects and all substances requiring deep cells, the self-centering arrangements will be highly appreciated. I have found that the slides in the market of average quality are not perfect rectangles, so that the slide must be replaced end for end the same as before, in order to have the entire benefit of the self-centering apparatus. This can be accomplished by marking one side of the turn-table disk with a file or by spotting it with cement. Then place the end of the slide bearing the label, or some special mark, toward the mark on the disk. An observance of this simple rule will save much annoyance in retouching or finishing off mounts. I would suggest that manufacturers make the disks with a mark where one end of the slide is placed.

The decentering turn-tables are so arranged that a slide finished off on a plain table can be readily brought into position and retouched. I have found this device of great convenience when fixing up old mounts or those injured in transportation. The Griffith turn-table has the best decentering arrangement that I have ever used.

Do not hesitate, in selecting a turn-table, to purchase a self-centering and decentering one, if it can be afforded. At any rate get one that has a heavy disk and a substantial hand-rest, so that the instrument will set firmly on the work-table and the disk will continue to revolve for some time. A smooth ring of cement can not be made if the brush touches the slide while the disk is at a stand-still, or moving slowly. The light turn-tables with thin narrow disks are valueless; the body of the turn-table should be supported on legs and not rest on a block of wood; otherwise it will not be steady. The patent removable hand-rest sold with turn-tables may bring a profit to the manufacturers, and I should think they would, judging from the prices asked, but to the microscopist they are only in the way. If the turn-table is placed directly in front of the operator, parallel with the edge of the table, and the worker sits squarely up to the table, there will be no need of a removable hand-rest. It is very important to learn in the beginning that good work

requires that a person shall sit well in the chair and with full face to the table, and then place the turn-table as just stated. It is almost agonizing to see how some persons persist in balancing themselves on one corner of a chair and attempt to direct the turn-table toward all points of the compass at once. When the operator and instrument are both properly placed the brush must be held in the hand after the manner of a pen, only it must make a more obtuse angle with the slide than the acute angle a pen forms with the paper. What is also of importance is to remember to have the brush touch the slide at the point in the imaginary ring which is furthest from the operator. That is, in a manner so that the brush-point, the center of the ring, and a point in the median line of the operator will form a line.

My advice, based on experience, is to avoid those turn-tables which have a spring self-centering apparatus, as the spring will soon wear out and leave the table only a plain one. Clips are a convenience on any turn-table, and I hope that some of the heavy and light running turn-tables which are now made without them will be soon supplied with this convenience. When the disk does not turn readily, or attempts to make music, it can be remedied by removing it and washing both spindle and socket with benzol or benzine.

My greatest and in fact only objection to turn-tables is the exorbitant prices asked for them. Still, I do not see how any microscopist can afford to work without one.—*Dr. H. M. Whelpley, F. R. M. S., in The Microscope.*

**PUERPERAL CONVULSIONS.**—The recent literature on puerperal convulsions is considerable. A noteworthy contribution to it was that in our March number by Dr. Swayne, recording a series of thirty-six cases, and extolling the advantages of venesection. Not much is to be learned from the record of isolated cases, especially when no discrimination is made of the varieties upon the importance of which Dr. Swayne so strongly insists.

In a philosophic survey of the subject Dr. James Tyson points out the importance of a prophylaxis of this complication, and laments the frequency with which pregnant women are allowed to go to term without examination of the urine. He considers that Rosenstein did not overstate the condition when he said that convulsions occur in about one fourth of all the cases of nephritis in pregnancy, and that about thirty per cent of the eclamptic cases die. When Bright's disease is associated with pregnancy Dr. Tyson recommends the induction of premature labor, (1) In those cases where a previous confinement was accompanied by grave



accidents which may be predicted to recur, especially those in which brain symptoms had appeared; (2) in every primipara in whom Bright's disease existed before marriage. In those cases where it is concluded to attempt to prolong gestation to the viable period or to the end of pregnancy Dr. Tyson insists on the freest elimination being kept up, and this through kidneys, bowels, and skin. If, in spite of all this, convulsions occur at the time of labor, he insists that, while the necessary emptying of the uterus is being carried out, blood-letting, chloroform, or chloral should be employed to diminish the danger of the convulsions. Dr. Tyson is very emphatic in saying that blood-letting is needed almost without exception in every case of uremic puerperal convulsions, and that many a case is lost through its omission. As soon as it has been carried out as far as seems safe or judicious, chloroform or chloral should be administered to control the convulsions, or one or the other may be used simultaneously with the bleeding. Under no circumstances is the action of chloral more happy, and the rectum affords a medium of administration as prompt and efficient in its operation as the mouth, which is generally unavailable for the purpose. No less than a dram in solution should be given at such a time by enema, and it is unwise to temporize with smaller doses.

Another view of the subject is presented by Dr. W. S. Gardiner, under whose supervision there was an examination of the urine of one hundred and eighty pregnant and parturient women, taken consecutively at the Maternité Hospital, Baltimore. Four of these patients had convulsions, and three of them died. Details are given of the urine analysis and of the cases of convulsions. Dr. Gardiner admits that the number of cases presented is too small for giving a dogmatic opinion, but says that if these are to be considered average cases the following conclusions may be drawn: (1) The presence of albumen in the urine of a pregnant woman is no sufficient cause upon which to base a prognosis of probable eclampsia. (2) The failure to find albumen in the urine of a pregnant woman is no evidence of the absence, or, at least, of the continuance of the absence of the condition that gives rise to puerperal convulsions. (3) Albumen is so frequently found in considerable quantities in the urine of patients immediately after the appearance of puerperal convulsions that we are justified in making the statement that the convulsions are the probable cause of the albuminuria.

Before the Obstetrical Society of London, on November 5, 1890, Dr. Herman cited four cases of pregnancy with Bright's disease without eclampsia. He pointed out that to under-

stand the relation between renal disease in pregnant women and eclampsia of pregnancy it was necessary to compare cases of renal disease without eclampsia, and said that there was very little evidence either for or against the view which many held that puerperal eclampsia was nothing else than uremic convulsions, occurring as the result of kidney disease in pregnancy and childbed.

It is obvious that the study of this distressing and dangerous condition has not advanced very far, and that to its consideration must be brought minds capable in no ordinary degree of making correct deductions from observed facts, and of weighing evidence in the most impartial manner.—*Bristol Medico-Chirurgical Journal*.

**WHAT SHALL BE DONE FOR A COLD IN THE HEAD?**—It may not be always possible to break up a cold. Sometimes during the congestive stage any thing which will allay irritation will suffice. The person who feels a cold coming on should instantly betake himself to bed, drink a cup of hot ginger tea, and make use of a snuff like that which was proposed several years ago by Dr. Ferrier:

Morph. sulph.....	gr. j;
Bismuth subnit.....	ʒ iij;
Pulv. acacie.....	ʒ j. M.

The insufflation of a little morphine at the commencement of a cold in the head is sometimes attended with very happy results. Quinine as an abortant in commencing cold is much in use. The dose should be somewhat large; Dr. T. J. MacLagan says ten grains. Its efficiency is, however, rather problematical. Doubtless, menthol is one of the best local applications in the early stages of coryza. It may be used in the form of an ointment (menthol one part, vaseline thirty parts), or as a spray with liquid albolene. A formula which may do good service is the following: Menthol, one part; liquid albolene, thirty parts. A special spray atomizer, such as sold by all the instrument makers, is needed for the effective use of this combination. Menthol seems to limit congestion to the mucous membrane. It is often followed by a profuse flow of nasal mucus, with little sneezing. Breathing through the nose and mouth the steam of hot camphor-water, and the internal use of carbonate of ammonia, are also recommended, and there is often utility in the production of active diaphoresis. Many of late years have claimed decided benefit from full doses of antipyrin, acetanilid, phenacetin, in the onset of cold, and doubtless these new remedies are more and more taking the place of the depressant diaphoretics.—*Boston Medical and Surgical Journal*.

# The American Practitioner and News

"NEC TENUI PENNÄ."

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No. 5

D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## RELIEF OF THE PAINS OF TABES DORSALIS.

Dr. Joseph Leidy, of paternal fame we suppose, suggests a method of treatment which he claims will alleviate the lightning pains of tabes dorsalis.

The old practitioner is not likely to grow enthusiastic over alleged therapeutic discoveries; but any man, young or old, who could suggest any thing that would alleviate the suffering or arrest the advance of that peculiarly intractable affection known as locomotor ataxia will win the lasting gratitude of the profession and of a host of sufferers. We hope that the much-longed-for device has been found by our young M. D. of the East. If it fails, we would advise its author to take refuge, like the elder Leidy, in the certainties of biology, and to leave therapeutics to the quacks and medical adventurers who must make a show of something or pull in their professional horns.

This note is for the purpose of drawing attention to the results of a simple method for the relief of pain during the course of spinal disease, and especially tabes dorsalis.

Warmth, in the form of the warm bath, has long been recognized as of considerable utility in the treatment of this symptom.

The writer has frequently observed the relief afforded by the firm application of a roller bandage in the spasmodic and painful conditions so common in

the extremities following traumatism. It occurred to him that the application of such a bandage (flannel or horse) to the part, the seat of pain in locomotor ataxia, might be of some service in mitigating the suffering. He found that the firm application of a bandage flannel from the toes to the upper third of the thigh was attended with great relief. During the past six months this method of treatment has been employed with most encouraging results. For the girdle pains a bandage similar to the abdominal binder, firmly applied at the level of the abnormal sensations, afforded almost instant relief. The cases under observation had been treated with galvanism, with absolute rest, and the usual therapeutic measures, the majority of which had failed. The usefulness of this method depends principally upon the pressure and warmth that the bandage affords, combined with rest. It is worthy of further trial, if only as a substitute for morphia. In one case the removal of the chest-binder was, in several hours, followed by a return of the girdle sensations. Two other patients invariably suffer a return of pain in the lower extremity on the removal of the bandage. In suitable cases the elastic stocking may with advantage be substituted for the bandage, as it does not interfere with locomotion.

The application of a roller bandage about the seat of pain was equally useful in several instances in which the area of pain was localized.

The method of treatment indicated will, I trust, commend itself for its simplicity, with the advantage of acting as a substitute for drugs.

## THE SNOOK-HERR POISONING.

In the preceding issue we published a paper relative to this tragedy by Dr. James S. Chenoweth, who, after a clinical analysis of more than sixty cases, concluded that no mineral poison could have been taken by the wedding guests. Elsewhere in this issue will be found a discussion of the question from the standpoint of the chemist, microscopist, and bacteriologist, by Dr. H. M. Goodman. These papers, with a former paper by Dr. Goodman, which appeared in our issue of April 25, 1891, a paper by Drs. Hyndman and Mitchell, of Cincinnati (Philadelphia Medical News), and a paper by Dr. J. W. Irwin, of Louisville (New York Medical Journal), place fairly before the profession the points under debate.

Dr. Goodman makes a fine showing for the theory of septic infection with ptomaine or toxalbumen poisoning, seemingly proving his case; but whether his theory be held competent to account for the phenomena or not, there can be no question of the incompetency of any theory based upon the behavior of mineral poisons in similar or analogous cases.



## Notes and Queries.

**RULES FOR THE MANAGEMENT OF INFANTS DURING THE HOT SEASON.**—1. Bathe the child once a day in tepid water. If it is feeble, sponge it all over twice a day with tepid water, or with tepid water and vinegar. The health of a child depends much upon its cleanliness.

2. Avoid all tight bandaging. Make the clothing light and cool, and so loose that the child may have free play for its limbs. At night undress it, sponge it, and put on a slip. In the morning remove the slip and dress the child in clean clothes. If this can not be afforded, thoroughly air the day clothing by hanging it up during the night. Use clean diapers, and change them often. Never dry a soiled one in the nursery or in the sitting-room, and never use one for a second time without first washing it.

3. The child should sleep by itself in a cot or cradle. It should be put to bed at regular hours, and be early taught to go to sleep without being nursed in the arms. Without the advice of a physician, never give it any spirits, cordials, carminatives, soothing syrups, or sleeping drops. Thousands of children die every year from the use of these poisons. If the child frets and does not sleep, it is either hungry or ill. If ill, it needs a physician. Never quiet it by candy or cake; they are the common causes of diarrhea and of other troubles.

4. Give the child plenty of fresh air. In the cool of the morning and evening send it out to the shady sides of broad streets, to the public squares, or to the park. Make frequent excursions on the rivers. Whenever it seems to suffer from the heat, let it drink freely of ice water. Keep it out of the room in which washing or cooking is going on. It is excessive heat that destroys the lives of young infants.

5. Keep your house sweet and clean, cool, and well aired. In very hot weather let the windows be open day and night. Do your cooking in the yard, in a shed, in the garret, or in an upper room. Whitewash the walls every spring, and see that the cellar is clear of all rubbish. Let no slop collect to poison the air. Correct all foul smells by pouring carbolic acid

or quick lime into the sinks and privies. The former article can be got from the nearest druggist, who will give the needful directions for its use. Make every effort yourself, and urge your neighbors to keep the gutters of your street or court clean.

6. Breast-milk is the only proper food for infants. If the supply is ample and the child thrives on it, no other kind of food should be given while the hot weather lasts. If the mother has not enough, she must not wean the child, but give it, besides the breast, goat's or cow's milk, as prepared under Rule 8. Nurse the child once in two or three hours during the day, and as seldom as possible during the night. Always remove the child from the breast as soon as it has fallen asleep. Avoid giving the breast when you are overfatigued or overheated.

7. If, unfortunately, the child must be brought up by hand, it should be fed on a milk diet alone, and that warm milk out of a nursing bottle, as directed under Rule 8. Goat's milk is the best, and next to it cow's milk. If the child thrives on this diet, no other kind of food whatever should be given while the hot weather lasts. At all seasons of the year, but especially in summer, there is no safe substitute for milk to an infant that has not cut its front teeth. Sago, arrow-root, potatoes, corn flour, crackers, bread, every patented food, and every article of diet containing starch can not and must not be depended on as food for very young infants. Creeping or walking children must not be allowed to pick up unwholesome food.

8. Each bottleful of milk should be sweetened by a small lump of loaf sugar or by half a teaspoonful of crushed sugar. If the milk is known to be pure, it may have one fourth part of hot water added to it; but if it is not known to be pure, no water need be added. When the heat of the weather is great, the milk may be given quite cold. Be sure that the milk is unskimmed; have it as fresh as possible, and brought very early in the morning. Before using the pans into which it is to be poured always scald them with boiling suds. In very hot weather boil the milk as soon as it comes, and at once put away the vessels holding it in the coolest place in the house—upon ice, if it can be afforded, or down a well. Milk care-

lessly allowed to stand in a warm room soon spoils and becomes unfit for food.

9. If the milk should disagree, a tablespoonful of lime-water may be added to each bottleful. Whenever pure milk can not be got, try the condensed milk, which often answers admirably. It is sold by all the leading druggists and grocers, and may be prepared by adding without sugar one teaspoonful or more, according to the age of the child, to six teaspoonfuls of boiling water. Should this disagree, a teaspoonful of arrow-root, of sago, or of corn starch to the pint of milk may be cautiously tried. If milk in any shape can not be digested, try for a few days pure cream diluted with three fourths or four fifths of water, returning to the milk as soon as possible.

10. The nursing bottle must be kept perfectly clean, otherwise the milk will turn sour and the child will be made ill. After each meal it should be emptied, rinsed out, taken apart, and the tube, cork, nipple, and bottle be placed in clean water or in water to which a little soda has been added. It is a good plan to have two nursing bottles and to use them by turns.

11. Do not wean a child just before or during the hot weather, nor, as a rule, until after its second summer. If suckling disagrees with the mother, she must not wean the child, but feed it in part, out of nursing bottle, on such food as has been directed. However small the supply of breast-milk, provided that it agrees with the child, the mother should carefully keep it up against sickness; it alone will often save the life of a child when every thing else fails. When the child is over six months old the mother may save her strength by giving it one or two meals a day of stale bread and milk, which should be pressed through a sieve and put into a nursing bottle. When from eight months to a year old it may have also one meal a day of the yolk of a fresh and rare boiled egg, or one of beef or mutton broth into which stale bread has been crumbed. When older than this, it can have a little meat finely minced; but even then milk should be its principal food, and not such food as grown-up people eat.

*Brief Rules for Cases of Emergency.* 1. If the child is suddenly attacked with vomiting, purging, and prostration, send for a doctor at once.

In the mean time, put the child for a few minutes in a hot bath, carefully wipe it dry with a warm towel, and wrap it in warm blankets. If its hands and feet are cold, bottles filled with hot water and wrapped in flannel should be laid against them.

2. A mush poultice, or one made of flaxseed meal, to which one quarter part of mustard flour has been added, or flannels wrung out of hot vinegar and water, should be placed over the belly.

3. Five drops of brandy in a teaspoonful of water may be given every ten or fifteen minutes; but if the vomiting persists, give the brandy in equal parts of milk and lime-water.

4. If the diarrhea has just begun, or if it is caused by improper food, a teaspoonful of castor oil or of the spiced syrup of rhubarb should be given.

5. If the child has been fed partly on the breast and partly on other food, the mother's milk alone must now be used. If the child has been weaned, then it should have pure milk with lime-water, or weak beef tea, or chicken water.

6. The child should be allowed to drink cold water freely.

7. The soiled diapers or the discharges should be at once removed from the room, but saved for the physician to examine at his visit.—*Dr. William Goodell, Annals of Hygiene.*

THE INTERNATIONAL HOMEOPATHIC CONVENTION.—In reading the reports of this convention, just held at Atlantic City, one is persistently struck by the indifference of the delegates and speakers to what would naturally seem their chief duty and concern. They did not appear to have much interest in disease, but only concern for the progress of homeopathy and in medical legislation. After two days of self-glorification came a practical-appearing paper on "Backache." The essence of the paper and of the subsequent discussion appears to be that backache is due to knots in corset-strings, to "non-woollen trouser waistband," to buttons, whale bones, heavy silver watches, etc. In diagnosing this wonderful disease we are directed thus: "After practicing usual crural and abdominal reflexes (!)



direct the patient to arch the back and rest on occiput and heels; request the subject to walk in a straight line, eyes shut, and at the same time play an imaginary fiddle. Some special curves disappear on patient 'dressing up' vertically and trying to look square." In the report as to the progress of homeopathy in foreign countries, we are assured that in Germany "the clouds of ignorance are being dissipated by homeopathy." In England the "slow progress" is charged to "British conservatism." "Good news" comes from China, Australia, South America, etc. "In Moscow and St. Petersburg the homeopathic physicians are pulling by far the greater number of silver door-bells." The quack, Count Mattei, upholds the flag in Italy. In America "homeopathy has received its full perfection like the other sciences."

"Insurance discrimination" was the subject of a report "received with marked interest." Personal letters, written to the presidents of twenty-seven life-insurance companies, as to their discrimination against homeopathic physicians in the choice of examiners, elicited only eleven answers. "Sixteen entirely ignored the request." The few replies are highly amusing. The question is dodged by most of the presidents; one can picture the wicked smiles that probably played about the grim visages of the writers as they dictated their answers. The officer was absent whose duty it was, or who "was competent," to answer the inquiry. Others aver they "never discriminate;" but the lecturer asserted most positively that the companies issue secret orders against the appointment of a homeopathist. Only one company met the question with a manly answer: "We appoint regular physicians because they are the best educated."

In considering "the ethical basis of the separate existence of the homeopathic school," Dr. Crouch contended that the "allopath" has "no more actual science than the Indian medicine-man who essays to cure by blowing feathers and beating tom-toms." This slightly extreme judgment was deemed too lenient, and was reinforced by adding that the "allopathic" principle of practice is "not one whit in advance of that of prehistoric man, nor in any way

changed except by the unfortunate doctrine of the illustrious Galen."

At odd, rare intervals a live medical subject was sniffed at, much as a puppy plays with a bumble-bee. One speaker did actually advise the trial of antiseptic methods in puerperal fever. Bacteriology was ogled and snapped at, but at once there was a turning of tail and a ridiculous retreat. The bumble-bee excites curiosity, but is dangerous. "Materia-medica day" (*sic*) promised a closer grappling with facts. Alas! we are again floated away on glittering generalities concerning "Civil Government and the Healers of the Sick"—in other words, our States and the general Government must not let the "allopath" have any cherries unless the homeopathic boys are allowed in the same tree. There was one practical subject announced: "A Comparison of Therapeutic Methods based on a Study of Arsenic." "At his own request the speaker was excused from reading it." He was manifestly out of place—possibly, like the young neophyte of Doré's great picture, he was startled at the medieval mummery and the kind of folk he had got among.

The fourth and fifth days also passed in much vaporous talk about homeopathy instead of about disease, an occasional slight diversion taking place as to hay-fever, appendicitis, etc. A paper on "Orificial Surgery" was noteworthy, and through her representative Philadelphia did not fail to make her voice heard in favor of "the liquor from corned beef and cabbage for cases of cholera infantum in babes as young as ten days." On the sixth day, the glorious subject being still unexhausted, "The Progress of Homeopathy in the World" was again discussed with perfervid rhetoric. But the topic nearest the heart ended all—the everlasting one of medical legislation.

Such a sketch as we have given, when read *post-mortem*, may appear like the caricature of a malignant partisan enemy, but it is not half so absurd as the more extended report given by the best daily papers. It is strange that such things can happen here, and now. Representatives of what purports to be a great medical school for healing disease come from all parts of the civilized world, and their whole week's

work is about their sect, not about disease. In all this great convention not a word is said concerning phthisis, that annually carries off about two thousand of every million inhabitants; not a word uttered by these men showed that they cared that each year, in this country alone, some forty thousand die of diphtheria. Did these "physicians" manifest any concern as to typhoid fever, to which three or four per cent of all deaths are due? As to diseases of the digestive organs that slay their thousands? As to diseases of the circulatory and nervous systems that slay their tens of thousands? As to diseases of the respiratory system that slay their millions? Should one sit down and enumerate the percentages of deaths from each disease that afflicts humanity, and then foot them all up, it would be found that during these seven days not a paper was read nor a discussion held upon the diseases that cause about ninety-nine per cent of the deaths of the world. And yet these people can find dupes who think there is either sense or seriousness in such a school of medicine!

However, could aught else be expected of men who almost worship one who took as his distinctive tenets of medical faith the most outrageous absurdities that can be imagined? Take away these travesties of nonsense and nothing is left of Hahnemannianism. What, in brief, simple English, are these articles of the Hahnemannian homeopathic creed?

1. That disease is immaterial, spiritual, its causes not perceptible to the senses, and that no attempt need be made to find them out.

2. That all chronic diseases, except syphilis and scycosis, are due to the itch.

3. That the more you weaken or dilute a drug with water the stronger it becomes, until all that is necessary is simply to smell the most diluted mixture—"even though you have no smell."

4. That to put out a fire you must add fuel to it—to cure a disease give a medicine that would cause it.

Is it to be wondered at that men who pretend to believe such idiotic drivel call themselves the "new school," when they know that the real new school of medicine, with its instruments of precision, its bacteriological research

and its earnest scientific zeal, should long ago have burned as in a garbage furnace their very "old school"? It is they only that could find satisfaction and self-exercise in dubbing as "allopathists" those who would as willingly, and could as justly, be called popcornopathists. It is only such who would pretend to practice "dynamization by attenuation," while secretly and hypocritically giving "allopathic" doses of "allopathic" drugs.

The moral of it all is, that to indulge in good-humored contempt of these pestiferous doctrines and doctrinaires, to show them mercy, to be indifferent to them, to compromise and play politics with them, is to be poltroon and renegade in the face of one's duty to science and humanity.—*Philadelphia Medical News.*

WILLIAM HARVEY.—The recent gift of a portrait of William Harvey to the reading-room of the Bristol Medico-Chirurgical Society should serve to remind us how much is to be learned from the example of such a philosophic student. Some points mentioned by one of his biographers may be quoted, and I here condense them:

In 1615, at the age of thirty-seven, Harvey was appointed one of the lecturers at the College of Physicians, and it was in the course of these lectures that he first publicly announced his new doctrines. But though he taught his opinions on this subject *viva voce* to his auditors, he continued assiduously to repeat his experiments and verify his observations for many years before he ventured to commit them to the press. Fabricius ab Aquapendente had taught him at Padua that the use of the valves of the veins was to moderate the flow of blood from their trunks into their branches. Harvey more rationally and more obviously insisted that the valves were intended to facilitate the return of the blood to the heart. He demonstrated that, the heart being excited to contract by the stimulus of the blood, that fluid is impelled through the arteries, and, having served every purpose of secretion and nourishment, returns by the veins to recommence its circulation. Great, however, as was the discovery of Harvey, his doctrine was not so complete and perfect in all its parts as it has since



been rendered by the labors of later physiologists. Harvey's work cost him twenty-six years to bring it to maturity. His discovery was ill received. Most persons opposed it; others said it was old; very few agreed with him. He had indeed, his admirers. Witness, for example, certain verses which were addressed "To the Incomparable Dr. Harvey, on his Book of the Motion of the Heart and Blood," in which these lines occur:

"There didst thou trace the blood, and first behold  
What dreams mistaken sages coined of old.  
For till thy Pegasus the fountain brake  
The crimson blood was but a crimson lake,  
Which first from thee did tyde and motion gaine,  
And veins became its channel, not its chain;  
With Drake and Ca'ndish hence thy bays are curl'd,  
Fam'd circulator of the lesser world."

But the epithet *circulator*, in its Latin invidious signification (quack), was applied to him by many in derision, and his researches and discoveries were treated by his adversaries with contempt and reproach. To an intimate friend he himself complained that after his book of the Circulation came out he fell considerably in his practice, and it was believed by the vulgar that he was crack-brained. All his contemporary physicians were against his opinion, and envied him the fame he was likely to acquire by his discovery. That reputation he did, however, ultimately enjoy.

About twenty-five years after the publication of his system it was received in all the universities of the world, and Hobbes has observed that Harvey was the only man, perhaps, who ever lived to see his own doctrine established in his lifetime. Harvey's other great work on the Generation of Animals cost him almost as much labor as his work on the Circulation.—*Bristol Medico-Chirurgical Journal*.

AN ARMY MEDICAL BOARD will be in session in New York City, N. Y., during October, 1891, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War before September 15, 1891, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of Amer-

ican citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-one and twenty-eight years of age, and a graduate from a regular medical college, as evidence of which, his diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing

C. SUTHERLAND,

WASHINGTON, D. C.

Surgeon General U. S. Army.

PRELIMINARY PROGRAMME of the first annual meeting of the American Electro-therapeutic Association, to be held at Philadelphia, Pa., September 24, 25, and 26, 1891, in the hall of the College of Physicians, corner Thirteenth and Locust streets:

President's Address. Dr. G. Betton Massey, Philadelphia.

Electro-Therapeutics in America; an Historical Survey. Dr. A. D. Rockwell, New York.

The Action and Application of the Faradic Current in Gynecology. Dr. Augustin H. Goelet, New York.

Alternative Currents. Dr. Horatio R. Bigelow, Philadelphia.

The Treatment of Corneal Opacities by Galvanism. Dr. C. A. W. Alleman, Brooklyn, N. Y.

Report of Seventy-five Cases of Uterine Myomata Treated by Electricity. Dr. J. H. Kellogg, Battle Creek, Mich.

Two Cases of Fibroids where Electricity Ceased to control Hemorrhage after a time, although eminently satisfactory at first. Dr. H. E. Hayd, Buffalo, N. Y.

The Treatment of Fibroids by Electricity. Dr. W. H. Hutchinson, Providence, R. I.

Electro-Puncture in Uterine Fibroids. Dr. G. Betton Massey, Philadelphia.

Electricity in Chronic Parametritis. Dr. Von Raitz, New York.

Report of a Case. Dr. A. H. Buckmaster, Brooklyn.

Some New Applications of Electro-Therapeutics. Dr. Frederick Peterson, New York.

The Analgesic Effects of Galvanism. Dr. Landon Carter Gray, New York.

Electricity in Diseases of the Stomach, with Exhibition of Patient. Dr. Lawrence Wolff, Philadelphia.

Electricity in Carcinoma. Dr. Robert Newman, New York.

Some Points in the Technique of Electrolytic Epilation. Dr. Plym S. Hayes, Chicago, Ill.

A Rare Case of Twin Extra- and Intra-Uterine Pregnancy Treated by Electricity. Dr. G. H. Whitcomb, Greenwich, N. Y.

Electricity in the Treatment of Rheumatism. Dr. W. F. Robinson, Albany, N. Y.

The Treatment of Subacute Articular Rheumatism by Electricity. Dr. M. A. Cleaves, New York.

Electricity in Anchylosis. Dr. Von Raitz, New York.

Has Electricity any Action as a Germicide, or in Producing Poisonous Results in Food. Dr. W. R. D. Blackwood, Philadelphia.

Exhibition of a Rectal Electrode, with Remarks on its Application. Dr. Guy Hinsdale, Philadelphia.

Abdominal Electro-Puncture in an Ovarian Tumor. Dr. G. Betton Massey, Philadelphia.

Eight Months' Work in the Dispensary for the Treatment of the Diseases of Women by Electricity. Dr. H. R. Bigelow, Philadelphia.

*Officers.* President, G. Betton Massey, M. D.; Vice-Presidents, William J. Morton, M. D., New York, Augustin H. Goelet, M. D., New York; Secretary, William H. Walling, M. D., 2005 Arch Street, Philadelphia, Pa.; Treasurer, George H. Rohe, M. D., Baltimore, Md.; Executive Council, Horatio R. Bigelow, M. D., Philadelphia; Franklin H. Martin, M. D., Chicago, Ill.; William F. Hutchinson, M. D., Providence, R. I.; Frederick Peterson, M. D., New York.

**MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.**—This is obtainable at any time by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Asso-

ciation, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own society, signed by the president and secretary of said society, with five dollars for annual dues. Attendance as a delegate at an annual meeting of the Association is not necessary in order to obtain membership. On receipt of the above amount the weekly Journal of the Association will be forwarded regularly.

**THE HISTORY OF TUBERCULIN.**—In four acts: Act 1—Eureka. Act 2—Vici. Act 3—Ave, morituri te salutant. Act 4—De mortuis nil nisi bonum. Epitaph—Fuit.—*Med. Press.*

### SPECIAL NOTICES.

JOSEPH P. ROSS, A. M., M. D., Professor Clinical Medicine and Diseases of the Chest, Rush Medical College, Chicago, Ill., says: For the past three years I have prescribed BROMIDIA very frequently, and have never yet been disappointed in securing the results required. In cases when there is Insomnia without pain, in the delirious stages of acute fevers, in delirium tremens, puerperal mania, in short, in all those cases requiring soporifics, I find BROMIDIA invaluable. I consider BROMIDIA an excellent combination.

**HABITUALLY MOIST FEET.**—This is found most frequently in such persons as live well and take little exercise. Also in young women of a somewhat nervous temperament, who indulge in the pernicious habit of frequent tea-drinking. Aside from its unpleasantness the danger attending on wet feet is acknowledged, and it is also not rare for persons so affected to have their feet and legs icy cold for long periods of time. In the editor's experience the best results of treatment have been obtained from the employment of foot baths of a strong solution of EXTRACT OF PINUS CANADENSIS (KENNEDY'S) every night, and the use of powdered boracic acid, or salicylic acid mixed with lycopodium, oxide of zinc, or other inert powder, constantly applied inside the stockings.—*Dr. Jamison's Periscope in Edinburgh Medical Journal.*

**MESSERS. REED & CARRICK:** Following is an extract from an editorial in a recent number of the "Times Register." In speaking of milk the writer says it is "variable in composition; disease transmitting; liable to adulteration; prone to decomposition; apt to absorb disease; of the utmost difficulty to preserve; a culture ground for almost every known disease-germ; if there is a Bea quality which a food can have which may not be found in milk, the writer knows it not." All of which after an experience of thirty-six years I believe to be true; and I will add that if there is a better Infant Food (except the mother's milk) in the world than Reed & Carrick's Soluble Food and Lacto-Preparata, I have not heard of it.

J. C. RUTTER, M. D.

BLOOMSBURG, PA., August 15, 1890.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

LOUISVILLE, KY., SEPTEMBER 12, 1891.

No. 6.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### OPHTHALMIA NEONATORUM.\*

BY T. C. EVANS, M. D.

*Demonstrator of Anatomy in the Hospital College of Medicine,  
Visiting Surgeon to the Eye and Ear Department of the  
Louisville City Hospital, Louisville, Ky.*

Of the many responsibilities that are incurred in all departments of the practice of medicine few surpass in magnitude or gravity those that fall to the lot of the physician to whose charge is committed the care of the ophthalmia of the new-born. In no other disease is the happiness and well being of the patient more absolutely dependent on the prompt and intelligent action of the attending physician and his nurse or assistants.

The statistics of the blind asylums of this country and Europe show that nearly 25 per cent of the inmates of those institutions have been admitted for this cause. This includes blindness in all ages. In blindness of childhood about 45 per cent is the result of this disease. When we add to this the large number of cases of blindness in one eye and the still larger number of those who have permanent corneal opacities more or less serious, we can form some idea of the danger of the affection.

The purulent conjunctivitis of early infancy is essentially identical with that occurring in adult life. But for convenience it is customary to speak of the latter as gonorrheal ophthalmia and the former as ophthalmia neonatorum. This

disease is usually noticed about the third day after birth, and is due to inoculation of the child's eyes with morbid vaginal secretions during labor or from the hand of the nurse, soiled linen or sponges after birth. In the latter case the inflammation may not appear for several days later. It is more common in delayed labors, as the chance of inoculation is thereby increased. Mule found that 80 per cent of his cases of infantile ophthalmia occurred in the children of primiparæ. As to whether all cases of ophthalmia neonatorum are specific in their origin there is considerable difference of opinion. The microscope shows that in a great majority of cases the gonococcus of Niesser is present, both in pus from the conjunctiva of the infant and in vaginal discharge from the mother. There are other causes of infection that can not at this time be positively excluded, anyway it makes but little difference so far as management is concerned. Then the uncertainty that still envelopes its etiology may prove a blessing, in that it affords a loop on which some conscience-stricken parent may hang a soothing doubt.

As to the symptomatology but little need be said. The time of its appearance, the tumefied conjunctiva, the excessive flow of pus, the swollen condition of the lids, particularly the superior one, which is frequently so great as to cause it to hang down over the inferior lid and assume a peculiar red and glossy appearance, are symptoms so well marked and characteristic as to make a mistake in diagnosis practically impossible. In a disease so fatal to vision it is indeed gratifying to know that treatment offers such satisfactory results. When treated early the cases of blindness or even of troublesome opacities are exceedingly rare, most of the fatal cases having probably never been seen by a physician until the sight was already

\*Read before the Central Kentucky Medical Society, Harrodsburg, July 17, 1891.

destroyed. The practice of poulticing, so common among midwives, is responsible for much mischief. In its management much firmness and perseverance is necessary. The nurse must have positive instructions not to let the cries of the infant or the sympathy of the mother deter her from fully carrying out the physician's instructions. The eyes will have to be thoroughly cleansed every hour with some antiseptic wash, and in some cases even oftener. As a wash I usually prescribe 1 gr. bichloride of mercury with 20 grs. sodium chloride to the pint of distilled water. To this may be added 1 gr. of atropine if indicated. But cleansing with the antiseptics is not sufficient. To this must be added the nitrate of silver. The effect of a solution of this drug in checking the flow of pus is almost magical. Owing to the swollen condition of the lids they are easily everted and the solution applied either by a drop or brush directly to the palpebral conjunctiva. Any excess of the silver solution can be at once counteracted by immediately using the antiseptic wash. The strength of the solution will vary from 2 to 10 grains to the ounce, and the frequency of its use from one to three times a day, according to the emergency of the case. I have on several occasions felt considerable uneasiness on finding very decided silver stains on the cornea caused by unskillful application of the solution, but they disappeared in a few days, and are, as far as my observation goes, never permanent. The disease generally lasts from three to four weeks, despite all attempts to cut it short. It is of especial importance to make a thorough examination of the cornea at the first visit, a task that is always difficult and often impossible without using lid retractors. If the cornea is cloudy or has opaque spots or a perforation, the parents' attention should be called to it at once and thus relieve the physician of the responsibility.

LOUISVILLE.

**SANTAL OIL FOR COUGH.**—Curtin finds that sandal wood oil often gives relief to the cough in phthisis, catarrhal pneumonia, chronic bronchitis with asthma and influenza. It is given on sugar or floated on water.

## DYSENTERY; ITS ETIOLOGY AND TREATMENT.\*

BY J. P. LAPSLEY, M. D.

At the earliest periods we find dysentery was one of the most common diseases, well known both to physicians and the laity, although, as we think now, very absurd ideas were entertained as to its etiology. Herodotus first called the disease dysentery in an account of an epidemic in the Persian army as they were marching through the deserts of Thessaly. It is evident from his definition of the name that he knew the same disease we now call dysentery, although numerous other diseases were called under the same name at that time.

*Etiology.* The etiology of dysentery has been from time immemorial a subject of discussion and disagreement between members of the profession, and even to this day a diversity of opinion exists among authorities, but it is the almost universal opinion of those with best opportunities of observation that epidemic dysentery is due to a specific cause, a miasm which emanates from the soil; but the precise nature of the morbid agent is still unknown. More difficulty is encountered in the study of micro-organisms in diseases of the intestinal tract than in any other set of diseases, because of the great numbers of micro-organisms found in the intestines in health, since decomposition and fermentation begin in the large intestines, forming the bacteria and torulæ producing these processes. It is a well-known fact that a large portion of the human feces is composed of micrococci, bacteria, and torulæ, and in dysentery, although the two former are not increased in numbers, yet the torulæ are much more numerous than in health. Although the exact nature of the germ has not yet been discovered, it is a settled fact that dysentery can not be had without the presence of a specific germ, by whatever name it may in the future be called.

The numerous other factors in the etiology of the disease may be explained as influencing and producing the germ and thereby causing diseases. Dysentery may then be classed with typhoid fever as a specific and miasmatic contagious disease, due to a germ not yet isolated

\*Read before the C. K. M. A., July 17 1891. (For discussion see p. 166.)



and possessing remarkable tenacity of life, as cases are on record where the disease has been contracted from privies and vaults being closed ten or more years after dysenteric stools have been emptied into them. Epidemics of dysentery almost always prevail in the hot seasons of the year and in localities where vegetable decomposition is most favorable, as in moist, swampy places. Heat and moisture in ancient times were considered two of the greatest factors in the causation of the disease, but they only influence it by being favorable to the production of the germ, as in some very hot places there never was an epidemic of dysentery. "Taking cold" is by far the most common idea of the causation of the disease, and is always the explanation of the cause of obscure cases of this disease, as well as all other diseases that human flesh is heir to, when the physician needs something behind which to hide his ignorance. Nevertheless it is a well-known fact that many cases are seen to come on after sudden changes in temperature from hot days to cold nights; the direct exposure of the abdomen to the influence of the cold causes congestion of the mucous membrane of the intestine and thereby predisposes it to the action of the germ and the outbreak of the disease.

Among other indirect causes of the disease (that is, causes predisposed to the action of the germ) are enumerated nervous influences, such as anger, sorrow, long-continued mental exertion, in fact every thing that may cause disturbances of the emotions; action of the irritating articles of diet, such as acrid foods, unripe fruits, and decomposing and fermenting foods, impurities in drinking-water, and hardened feces remaining in the lower bowel until an inflammation is set up. To sum up the etiology of dysentery in as few words as possible, we may say that dysentery is a miasmatic, contagious disease analogous to typhoid fever and due to a specific cause or germ to be found in the air, alimentary canal, and in all other places favorable for the growth and dissemination of germs.

*Pathology.* Dysentery is a local affection, but if long-continued and severe will show constitutional symptoms, like all other diseases. It is usually ushered in by a gastro-intestinal ca-

tarrh, and after a few days symptoms of dyspepsia and diarrhea set in and increase, with pain in abdomen, nausea and copious fluid discharges, violent griping and tormina with great depression. Tenesmus becomes intense and more or less constant and the discharge is attended with no relief. The region of the rectum becomes inflamed and is the seat of intolerable, burning pain. The discharges may be copious or scant, dark brown, thin and highly offensive, and containing scybala, or finally they may become so scant that with the greatest effort only very small quantities of mucus streaked or tinged with blood are passed. In some cases the discharges contain lotura carnea, sometimes the discharge is pure blood. There may or may not be fever, but the pain and discharges quickly exhaust the patient and lead to emaciation and profound prostration; skin becomes hot and dry, tongue heavily coated, and the face wears an anxious expression characteristic of the disease. An acute case of dysentery sometimes subsides without lesions, and a duration of an attack may be cut short by proper treatment. Specific dysentery lasts from two to four weeks, but some cases show a peculiar defiance and resist all treatment, even the last resort, change of climate.

*Treatment.* Under favorable circumstances and proper hygiene the majority of cases of the catarrhal form recover without special treatment in from three to ten days; but epidemic dysentery has no duration and but little tendency to spontaneous cure; but the worst cases are often checked by appropriate treatment. In all cases of dysentery perfect rest is the first requisite for treatment, and absolute milk diet should be enforced. Active treatment should begin with a saline laxative, such as a seidlitz powder, a dose of Rochelle salts or sulphate magnesia in broken doses—which in fact has been considered by some to be in itself a cure for the disease—a large dose of castor oil or from five to ten grains of calomel. For the relief of pain in lighter cases tincture opium with camphor-water and nitric acid will be all that is necessary. Since dysentery is undoubtedly a local and specific disease, by far the most rational treatment is by irrigation of

the large intestines in severer forms. Many cases will recover almost immediately after an irrigation with cold or ice-water, if the lower bowel be thoroughly irrigated and all of its contents removed. Wood highly recommends the treatment of specific dysentery by injection of nitrate of silver, 1 gr to O. H<sub>2</sub>O, three times daily, and claims some surprising cures. A very successful way of irrigating is by injecting as much water as possible with a dram of alum to the pint. Salicylic acid is in this way often a benefit, but carbolic acid can not be used on account of its toxic effects. Bichloride of mercury has also been frequently used as well as all the other antiseptics. If there is a specific in the treatment of dysentery it is pulverized ipecac. In all acute cases give from 30 to 60 grains every four hours, as it must be given in decided doses to obtain its effects. My method of using it is to give one dram, and if necessary repeat in six hours. It causes a great deal of nausea, and sometimes vomiting for two hours. Then the patient breaks out in a profuse perspiration, the pulse becomes fuller, softer, and more regular, and tenesmus and abdominal pains cease and there are no more stools from eight to twenty-four hours. Ipecac has all the advantages of mercurial purgatives without their irritating action; all the results of sudorifics without their uncertainty; all the benefits of opium without any of its disadvantages. Should the remedy fail to be of value in forty-eight hours, it should be discontinued and irrigations used. Turpentine, internally and externally, has had its advocates; also astringents, such as tannic acid, kino, catechu, kameira, acetate of lead, and nitrate of silver; also boric acid, opium and its preparations, and quinine. All other things failing as a cure in chronic cases, a permanent change of climate should be advised.

MCALEER, N.Y.

**THE CINCINNATI LANCET-CLINIC.**—The editorial chair of the Cincinnati Lancet-Clinic, made vacant by the transfer of Dr. Culbertson to the Journal of the American Medical Association, has been filled by the selection of Dr. A. B. Richardson—Dr. J. C. Oliver and Dr. L. S. Colter being associate editors.

## RAPID DILATATION AND CURETTING.\*

BY J. G. CARPENTER, M. D.

This is a subject of no little importance to the profession. The voice of warning has been raised against, it might be said, the wholesale use of rapid dilatation and curetting, or the practice of these in the hands of those who are unskilled in their use and are poor diagnosticians of intra-pelvic diseases. In fact, these therapeutic measures have been severely condemned by distinguished abdominal and pelvic surgeons, chief of whom is Dr. Joseph Price, of Philadelphia. He has written a most excellent paper on "Certain Causes of Major Pelvic troubles Traceable to Minor Gynecology."

That they have been severely condemned is no argument against their proper use. That they have been shown to be instruments of great harm in the hands of the routinist, the inexperienced, and unskillful, and have met with so great censure by intra-pelvic surgeons so eminent, will deter many from their former practice and save the female the ordeal of abdominal sections. It may be truthfully stated that when the intra-pelvic affections threatening life, arising from rapid dilatation and curetting, as well as the improper use of the uterine sound and trachelorrhaphy and abuse of pessaries and caustic application to the endometrium are realized and appreciated by the so-called pseudo or minor gynecologists, there will be fewer women whose ovaries and tubes are in bottles instead of their normal habitat.

Unfortunately for humanity, so many young graduates as well as senior members of the profession appropriate to themselves the stupendous title, Gynecologist, and seem to think the essentials to a successful practice and fortune are the speculum and uterine sound, curette, Goodell's dilater, and Thomas' retroversion pessary, and handle the sound with as much recklessness as the dude twirls his cane, and imagine all intra-pelvic diseases are uterine.

The *ultima thule* is fewer and better practitioners, a less number of medical students, fewer and better medical schools, with en-



larged hospital experience, and instead of three years' course of study being compulsory make it five years or longer, with abundant clinical or hospital experience, and gynecology taught and learned before it is put into practice. Unfortunately only the minority of every graduating class have had proper clinical experience with which to begin practice; the majority seldom reach mediocrity—they start wrong, go wrong, and end wrong.

There are cases demanding rapid dilatation or curetting or both, and the physician would be derelict of duty not to use them. Their proper use must be commended, their improper use condemned.

The scriptural adage "Be temperate in all things" is highly appropriate and essential in the practice of minor gynecology. That the minor gynecologist too often ignores or is incompetent to detect existing intra-pelvic diseases when practicing these methods, or by the practice produces intra-pelvic diseases, there can be no doubt. Just in proportion to the abuse of rapid dilatation and curetting and other minor measures does he become a feeder to the major gynecologist or abdominal and pelvic surgeon. Only a few weeks' observation and study and analysis of cases in the practice of men in the profession like Drs. Joseph M. Price, Charles B. Penrose, E. E. Montgomery, and Hoffman, of Philadelphia, and T. A. Emmet, of New York, would convince any "doubting Thomas" that certain causes of major pelvic troubles are traceable to minor gynecology.

In one class of patients you will find the major pelvic troubles traceable to a dirty confinement or too early leaving bed and resuming household duties or hardships or other minor imprudences, to imprudences during the menstrual molimen and frequent abortions; others have had a gonorrheal infection or sexual abuse; others date origin of the ailment to an improperly adjusted pessary, to the use of the sound or probe, caustic application to the endometrium or os; others to operation on cervix (trachelorrhaphy) or electrode; others to rapid dilatation or curetting, etc. That the general practitioner too often generalizes in place of specializing, and the specialist too often spe-

cializes instead of generalizing, there can be no doubt, and that the gynecological tinker tinkers with his patients until major pelvic troubles arise and his patients pass into the hands of the pelvic surgeon is self-evident.

These major pelvic troubles many of them, like Banquo's ghost, will continue to arise, because they will not down or cease until the pseudo-gynecologist ceases to tinker. These questions may be asked, Are forcible dilatation and curetting ever essential; and when are they indicated? Answer, yes. When and by whom should they be used? They should be used by the aseptic physician or surgeon who has been taught by practical experience and differentiation the *pros* and *cons* for these measures and as a dernier resort; but sometimes, as in cases of hemorrhage and putrid placental infection their use as means of primary remedial importance must be considered in order to save life and prevent sepsis. With aseptic instruments, through the aseptic vagina, os, and cervix, when dilatation or curetting is accomplished, make the endometrium aseptic with hot water, the bichloride or boric solutions, iodine and glycerine mixture, Churchill's tincture of iodine, the liquid vaseline and oil of eucalyptol or menthol solutions, the insufflation of bismuth subnitrate or iodoform. The vagina should be kept septic *pro re nata* by hot antiseptic douches and the aseptic vulva pad to prevent decomposition of the uterine discharge and infection. Before forcible dilatation or curetting are resorted to the patient should be given a hot water and soap bath, purged freely, and placed in bed at rest twenty-four or forty-eight hours, and the vagina douched with hot antiseptics every six or twelve hours. After the operation the patient should be kept at rest in bed one or more days until all manifestations of a local or constitutional reaction have subsided and the patient is free from danger. The operation should never be done in the private or consulting office, and never by the pseudo-gynecologist; nor oftener than at intervals of ten or fourteen days, at least five days before and after the menses, and when the disease is limited to the uterus *per se*, and there is an entire absence of disease in the pelvis.

These measures, though sometimes indicated

and though no intra-pelvic inflammation is present, may do and have done incalculable harm by setting up pelvic diseases. Even though slight, no dilatation or curetting should be practiced unless absolutely required by patient to save life. Rapid dilatation and curetting are distinct traumatisms, and all the dangers incident to septic absorption may attend them that follow any other violent procedure.

STANFORD, KY.

## Societies.

### CENTRAL KENTUCKY MEDICAL SOCIETY.

This Society met at Harrodsburg, July 17, 1891. Papers were read by Dr. Steele Bailey, of Stanford; Dr. Meyers, of Rowland; Dr. J. G. Carpenter, of Stanford; Dr. J. P. Lapsley, of McAfee; Dr. T. C. Evans, of Louisville, and Dr. Purdom, of Mitchellsburg. We are glad to be able to present our readers with three of the papers read, and with the interesting discussion that followed upon two of them. The illness of the secretary prevented the preparation of a full report. Dr. Evans' paper will be found on page 161. It elicited the following

#### DISCUSSION

Dr. Carpenter said that, nowadays, ophthalmia neonatorum was not the bugbear it was in the auld lang syne, that antiseptics had robbed it of its terrors, and it was a rare event to observe a case in the hands of a reputable physician, be he specialist or not. The warm bath given to the mother twenty-four hours before labor, with a vaginal irrigation, was the plan pursued at the Preston Retreat in Philadelphia, which had been the means of preventing for the past few years the occurrence of a single case in that institution.

My experience has taught me that cases are propagated by husbands who yet possess the remains of an old gonorrhea, and who before labor have intercourse with their wives. A few cases of this kind I have seen, which it was impossible to account for in any other way.

When the disease is present, irrigate the lids, keep them free from all secretions, and nothing

is better than a four-per-cent solution of boracic acid as an antiseptic. But when the secretion is free argent. nitratis is the remedy *par excellence*.

Dr. J. P. Lapsley read a paper entitled "Dysentery; its Etiology and Treatment." (See page 162.)

#### DISCUSSION.

Dr. H. Brown, Hustonville, said that the etiology of dysentery was quite well understood, and had been so well pointed out by the appointee, Dr. Lapsley, that he wouldn't mention it again, but consider briefly the treatment which had met with most approval in his hands. He said that a real experience, and he had met many rare and instructive instances in the past quarter of a century, was not simply in seeing cases, but in formulating for one's self one's own opinions, and in drawing from them conclusions which were safe and of value. There is no specific for dysentery. Mild attacks will recover under almost any or even no treatment, while the severe or epidemic type will defy the therapeutics of the best doctor in the land. As a routine measure, let the form be as it may, I commence treatment by giving Crab Orchard salts as a laxative and cholagogue, and washing out the rectum with hot water, to be followed by the topical application of laudanum. I desire to put the rectum, as it were, for a time in splints, and with my patient at ease I am better prepared at my next visit to administer to symptoms. Ipecac in small and frequently repeated doses has given more satisfaction in a curative sense than any other single remedy. I find this less nauseating than in larger quantities. To formulate a plan for treatment of acute dysentery, I would say absolute quietude of body and mind; very little fluids of any kind to enter the stomach; where the pains are excruciating and attended with tenesmus, the warm bath and small hypodermics of morphia with ipecac, either alone or with blue pills and gentian, to act on the portal capillaries and those of the mucous membrane and to determine powerfully to the skin.

Dr. A. D. Price, of Harrodsburg, said that in the outset he administered salines followed up by opiates, either hypodermically or otherwise, as seemed to be most agreeable to his pa-



tient. Of course prevention was the first thing which should engross the physician's mind in the treatment of this disease, which had been so fatal as an epidemic in some localities of the State. He should remember that to oppose the beginning is of paramount importance in the alleviation and cure of the disease. Ventilation and cleanliness must prevail, and as regards the giving of physic he is accustomed to treat his patients upon general principles with subnitrate of bismuth and pulverized ipecac and to meet symptoms as they arise, giving light nourishment, milk and soups, and securing ease from pain. In chronic dysentery he is accustomed to administer nitrate of silver or use the mitigated stick, with frequent irrigations of the rectum and examinations with the speculum for ulcerated patches, which may be relieved by local measures.

Dr. Carpenter, of Stanford, said that to robust patients he gave ipecac, otherwise he should withhold so depressing a remedy. His initial treatment was by means of a vapor bath, followed by morphia hypodermically, and ipecac, if permissible, or, as in as many as one hundred cases he had thus satisfactorily treated, Crab Orchard salts combined with the tincture of opium. These cases had given them at the beginning each a dose of mercurial, the best being calomel, with the most favorable results. He put the patients in the knee-elbow position and injected a half to a gallon of hot water, slightly carbolized. He said that an ulcer of the sigmoid flexure or colon was occasionally mistaken for flux, and the proper treatment for this condition was to almost stand the patient upon his vertex, so as to inflate the gut with air and enable the physician to make the proper applications to insure a cure.

Dr. Purdom, of Mitchellsburg, said that he didn't believe in ipecac, his experience being that frightful nausea followed its use, and such interference as to prevent his patients from being nourished. He liked mercury, preferably the gray powder, for the bile, and, as there was always more or less hepatic complication, he believed that mercury, not pushed to ptyalism, but given in small doses, in combination with opium, would work wonders. He employs free

irrigation of the bowel with hot water, with antiseptics, preferably listerine and opiates.

Dr. Plummer, of Harrodsburg, said that he had seen but few cases of dysentery in private practice, but that he had had a large experience in the Confederate army, and was persuaded that local treatment yielded the best results. He flooded the bowels, then put in starch and laudanum. The sulphate of magnesia, with laudanum, was the best for army flux. In private practice he tempered the wind to the shorn lamb and gave rest by hypodermics, an easily digested diet, with pepsin, bismuth, and opium, and had had but little difficulty in effecting cures.

Dr. John C. Boyle, of Danville, said that in reference to the etiology of dysentery he must admit himself to be in the dark. If it is not malarial it must be one of its congeners. After much thought on the subject, he is of the opinion that there is a dysenteric miasm, and that from the stools of persons suffering from bloody flux the disease may be propagated. Of course he is alluding to the exciting causes and not to the predisposing, such as unripe fruits, spoilt vegetables, depressing emotions, anger, grief, etc. He believes that a person has dysentery long before the stools are bloody, and that the disease is stopped in many instances at its inception by full doses of opium and quietude. But it is just here that the practitioner is sometimes thwarted by a mistaken diagnosis, and will treat for dysentery acute catarrh of the rectum. The initial symptoms are similar, but opium makes the patient far worse in catarrh, and nearly all astringents are valueless; but if a solution of potassium chlorate is employed all the bad symptoms vanish in thin air. I like bismuth as an antiseptic in dysentery, with chalk mixture and listerine or salol, which acts happily. I think that ipecac has seen its last days, and is already, as should be the case, relegated to deserved obscurity, at least in this country. In India the disease may be benefited by the *radix dysentericus*, but not elsewhere, so far as my reading and observations go.

Dr. Wiley, of Harrodsburg, says ipecac has been good in his hands, but since the introduction of salol, with which he saturates the pa-

tient, he does not give it so often. By rest and proper diet with salol you cure nearly all your cases; and if some become chronic, by means of the remedy you avoid many after troubles.

Dr. Meyer, of Danville: In sporadic dysentery but little treatment is needed, the cases all get well; in the epidemic form they nearly all die, and much medication is vain. We have no specifics, but if ipecac is rightfully appropriated it comes nearer a specific than any other remedy in the materia medica. No stomach will tolerate ipecac without an anodyne influence. A large hypodermic of morphia, then 30 to 40 grains of ipecac, with lavage of hot water in the bowel are soothing to the nerves and give a quietus incomparably greater than any other plan of treatment. Tenesmus is benefited by ice in the rectum. He instanced a cattle-man in whom ice compresses acted like a charm, and since this observation he never fails to employ it. Milk is the aliment, and that fresh from the Jersey's udder quickly boiled gives unmistakable results.

Dr. Webb, of Bryantsville: I think that dysentery is self-limited, and no remedy is going to shorten it. The pathology is ulceration of the bowels, and time, the healer, will be necessary for its cure. The hypodermic syringe is worth more than any thing else in this disease. Morphine controls pain and paralyzes the spasmodic action of the bowel and rests the diseased part. It is the *sine qua non*.

The papers by Drs. Meyer, Purdom, and Bailey will appear in our next issue. The Society is in fine working order, and we hope to be able in future to lay before our readers full reports of its valuable proceedings.

THE ANTI-TOBACCO MOVEMENT IN FRANCE. The French Society against the Abuse of Tobacco offers a prize of 300 francs (£12) for the best report of at least six unpublished observations of affections exclusively attributable to the abuse of tobacco. Full details must be given as to the etiology, symptoms, progress, and termination of the cases. Further particulars may be obtained from the President of the Society, 38 Rue Jacob, Paris.

## Abstracts and Selections.

CHLORALAMID IN SURGERY.—EMORY LANPHEAR, M. A., M. D., Professor of Orthopedic Surgery in the University Medical College.) Frequently after an operation of magnitude it is necessary to give the patient something to quiet the nervous system and to produce sleep. It is not always pain which causes restlessness and sleeplessness after the operation—in the majority of cases I am sure that the impression upon the nervous system, and particularly upon the mind, is what leads to the insomnia; for under our antiseptic methods, and especially where the wound has been covered with iodoform—a drug having decided anesthetic properties—there is but a trifling amount of pain, often none, even after the most severe operative procedures. But as night draws near there is a growing restlessness, and at the hour when sleep should come the patient is anxious, nervous and wakeful. What can be done? The almost universal rule among surgeons is to order a hypodermic injection of morphine; but I believe this is unjustifiable unless there be some indication for the anodyne effect of the opiate; this is markedly true in abdominal surgery, but in any case the morphine is objectionable because it is apt to produce vomiting, is certain to seriously interfere with the process of digestion, is sure to induce constipation, and nearly always to give rise to headache, *malaise*, etc. Chloral has been suggested as a proper hypnotic; but chloral depresses the heart to a dangerous degree, and therefore can not be used in these cases. Bromides, with hyoscyamus, will sometimes answer the purpose admirably, but most stomachs rebel against this combination, so that it is hardly safe to try it. What then can we use? If a drug can be found which will be free from all these objectionable features it unquestionably will fill an important place in our materia medica.

Such a one, it seems, has been discovered in chloralamid. This comparatively new medicinal agent is prepared by combination of two parts of chloral hydrate with one of formamide; it is found in commerce as a colorless, crystalline substance, nearly tasteless, soluble in about twenty parts of water and two of alcohol. It will keep indefinitely in solution without decomposition, but can not be dissolved in hot solutions because of chemical changes. It acts very much like chloral and sulphonal, but does not depress the heart like the former, and is much superior to the latter in that it is soluble, exerts no bad influence upon digestion, possesses no diuretic action, never causes pruritus, vertigo, diarrhea, or other bad symptoms which



sometimes follow the administration of sulphonal—in fact, experience is demonstrating the accuracy of Reichmann's observation, from chloralamid no ill effects in the circulation or in the feelings of patients are to be noted; and besides, the cost is much less than that of sulphonal. T. Lauder Brunton, in a recent report on the Relative Utility of Different Hypnotics, highly commends it, and states that with reference to certainty of action and the question of tolerance chloralamid surpasses.

It exerts its influence upon both the brain and spinal cord, producing sleep and reducing the motor excitement; it may be regarded as a pure hypnotic without anodyne properties, though some late reports would indicate that it has to some degree the power for partial abolition of pain. It is, then, the ideal sedative, giving prompt and satisfactory action, reliable results and absolute freedom from evil side or after effect.

Its dose is from fifteen to sixty grains. The proper method of exhibition is to give fifteen to thirty grains (according to the condition of the subject), repeating the dose in an hour if the first have not produced sleep; usually from ten to thirty grains give five to eight hours refreshing slumber. The best method of giving it is to dissolve the required amount in about a teaspoonful of whisky or brandy, or in a small glass of wine if the patient prefer. It may also be given in any thing containing alcohol in considerable quantities, as tincture cardamom compound, tincture of hyoscyamus, etc. If for any reason it can not be given in this manner it may be taken in powder form, and washed down with cold water or cold tea. The direction of W. Hale White, of London, is a good one; viz., tell the patient to dissolve the powder in brandy, add water to his liking, and drink it shortly before going to bed; this combination with spirits is particularly good in our surgical cases where whisky is usually indicated, at least in most major operations. If in any case it be better to have the medicine in liquid form, this combination may be prescribed:

Chloralamid.....	℥ij.
Spts. frumenti.....	℥.℥j.
Misce bene et ft. solut. et adde:	
Syrupum rubi idæi.....	℥.℥j.

Misce. Sig: Dose, one tablespoonful, to be repeated in one hour if sleep is not produced. This makes a decidedly pleasant mixture of slightly acid taste and fruity aroma and flavor.

**SOMNAL; A HYPNOTIC.**—(Irving D. Wiltrout, M. D., Physician in charge of the Holmes Sanitarium for Nervous Diseases at Hudson, Wis.) Since I have been placed on the Committee on New Remedies, and in view of

the fact that I am always desirous to keep up the interest of this Society by promptly responding to any task that may be set before me, I write this brief paper on a remedy that is not new to all of you, but some of you may not yet have tested its merits in that most annoying and often intractable symptom, insomnia.

The remedy I refer to is somnal. I show you here a sample of it. It is, as you see, a colorless liquid, resembling chloroform in its appearance and behavior when added to cold water, in which it forms globules, and refuses to mix or dissolve. When shaken with water the mixture is milky, but quickly separates. It is soluble in hot water and alcoholic solutions, and dissolves resinous substances and fats. The odor is rather delightful, and resembles somewhat that of spirits of nitrous ether. The taste is pungent, and for administration it needs free dilution. When whisky is not objectionable, or alcohol, it can be dissolved in either, to which water can then be added until the taste is not unpleasant. The taste can be disguised well in syrup of ginger or licorice.

Somnal is inflammable, and burns with a flame resembling alcohol. Somnal can be said to be a new remedy, for it was first brought to notice by Radlauer, of Berlin, in the fall of 1889. It is formed by the union of chloral, alcohol, and urethane; but it is not simply a mixture of these bodies. It differs from chloral-urethane by the addition of  $C_2H_5$ , its formula being  $C_7H_{12}Cl_3O_3N$ . The dose ranges from fifteen to thirty drops. In its action it resembles chloral in quickness of effect and naturalness of the sleep produced. No marked depressing influence is exerted upon the pulse or respiration, though it is noticed that the breathing becomes slower and the pulse slower and fuller, as in natural sleep.

I have used this drug in upward of thirty cases, and in no instance did I find any disagreeable after-effects. The head remains clear on waking, and the stomach unaffected. No constipating or relaxing effect follows this issue. The kidneys are slightly quickened. No increase of dose is called for, however long you use the remedy. Usually two doses are sufficient. I have the habit of giving the first dose at 8 o'clock and the second at 10. A night's rest usually follows. In aggravated cases of insomnia I order a third dose administered at 2 A. M. if the patient is wakeful.

The sleep is very natural. It does not, like chloral, depress the heart, irritate the stomach and produce morning drowsiness, or disturb the gait, dull the sensibilities and irritate the stomach, which is often the case when sulfonal is used. In a form of insomnia which accom-

panies general neuralgic pains, this remedy almost invariably relieves the pain and provokes a restless sleep.

In the fretfulness of nervous people who can not sleep, as in certain cases of melancholia agitata, hysteria, hypochondria, and puerperal mania, I have found this remedy preferable to any other.

I have no experience in using this drug in the sleeplessness of children, nor have I witnessed its results in the acute febrile diseases. I believe that this remedy stimulates the gastric mucous membrane, and by so doing relieves nausea and pain, often improves the appetite, and regulates the bowels.

Its power of relieving nausea and accumulation of gas in the stomach is very pronounced. I have in three instances administered it in small doses during the day for this purpose. The results were exceedingly satisfactory. As it is rapidly eliminated from the body, it may be administered each night or a number of days without any possibility of ill effects.

I am fond of old remedies; I take up new ones cautiously; but in my efforts to give refreshing and restful sleep to the sleepless and worn-out nervous cases that come under my call, I was ready to put this new remedy into immediate use, and I have done so with the results given above.—*N. W. Lancet.*

**LOCAL TREATMENT OF DYSENTERY.**—Dr. H. C. Wood calls attention to the local character of dysentery as usually seen in this climate. It is not a constitutional affection, and should be combated with local rather than general treatment. The ordinary treatment owes much of its influence to a local influence.

In acute dysentery, involving the colon high up, he has found large enemata, containing two or three drams of subnitrate of bismuth, much more efficient than the exhibition of bismuth by the mouth. When the symptoms are severe this local treatment may often be preceded with advantage by washing out the colon with large quantities of cold water. He has never used injections of nitrate of silver in acute dysentery, although the effect of the local application of the nitrate in other inflammations of the mucous membranes would justify trial of the remedy. He has seen in one or two cases large enemata of very hot water injected without affording relief, and believes that hot water enemata are, in their ordinary results, not at all comparable with large injections of ice-cold water.

When the lower part of the colon is affected the local use of ice sometimes has an almost marvelous effect. The author has seen the whole aspect of a very severe and alarming case, in which the symptoms indicated that the

colon was affected high up, changed in a single hour by the continuous use of ice suppositories. While it is not necessary to have a piece of ice entirely regular in shape, care should be exercised that no sharp edges are left. The suppositories should be rapidly used, one being put into the rectum every three to five minutes, so as to get, for at least half an hour to an hour, the effect of the continuous application of cold.

When tenesmus is very severe iodoform suppositories are often much more efficient than opium in bringing relief. A remedy which has been from time to time recommended very highly in dysentery but has not been much used is ergot; and when the passages contain large quantities of blood, or are nearly pure blood, the extract of ergot would seem to be indicated. Dr. Wood has never used ergot by the mouth in these cases, but has employed suppositories containing twelve grains of extract of ergot and four grains of iodoform, used every two hours until four or five suppositories had been taken, with seemingly great advantage.

The local treatment of dysentery is not advocated as a substitute for the use of mercurials, purgatives, and ipecacuanha, etc., but as a very important adjuvant to the older forms of treatment. Nevertheless, in the author's experience, the effect of local remedies has been more prompt and decided than that of drugs given by the mouth; and in cases of any severity the attack upon the disease may be made from each end of the mucous tract.—*Boston Medical and Surgical Journal.*

**AN EASY METHOD OF PLUGGING FOR EPISTAXIS.**—Dr. A. A. Philip describes a ready method of plugging the posterior nares, which in his hands is both effectual and easily accomplished. (*British Medical Journal*, July 18th.) A piece of old, soft, thin cotton, oiled silk, or silk, about six inches square—a piece of an old handkerchief will answer—is taken, and by means of a probe, metal thermometer case, or penholder is pushed "umbrella" fashion into the nostril, the direction of pressure, when the patient is sitting erect, being backward and slightly downward. It is pushed on until it is felt that the point of the "umbrella" is well into the cavity of the naso-pharynx.

The thermometer case is now pushed on in an upward direction and then toward the sides, so as to push more of the "umbrella" into the pharynx, and is then withdrawn. The closed end of the sac protrudes well into the pharynx, and its open end protrudes at the anterior nares. The inside of the sac may be brushed with some astringent, such as alum or turpentine.

A considerable quantity of cotton-wool is pushed well back to the bottom of the sac in



the pharynx. Then, the thermometer case being held well against the packed wool, the mouth of the sac is pulled upon, and thus its bottom is drawn forward, and forms a firm, hard plug wedged into the posterior nares. The sac may now be packed full of cotton wool, dry or soaked in some astringent solution. The mouth of the sac is tied just outside the nostril, trimmed with scissors and the ends of the thread secured outside.

In removing the plug, open the mouth of the sac, and with small dressing forceps gently remove the cotton-wool bit by bit. If there is bleeding, simply syringe the sac with weak carbolic lotion or Condy's fluid, and repack with clean cotton-wool. If there is no bleeding when the wool is picked out, gently pull out the sac, or if it be adhering to the mucous membrane of the nostril, apply a little warm water, and it may then easily be removed.

By this method no damage is done to the floor of the nose or back of the soft palate by strings, etc., no disagreeable hawking, coughing, or vomiting takes place during introduction, and no disagreeable strings are left hanging inside the mouth.—*Boston Medical and Surgical Journal*.

**THE PATHOLOGY OF QUININE AMAUROSIS.** Dr. De Schweinitz, of Philadelphia, has contributed in the *Ophthalmic Review*, February, a paper on the results of some experiments undertaken by him to determine the lesion of blindness from quinine. He administered the drug by the hypodermic method in a series of six dogs, using doses varying from 1 grain to 6 grains to each pound of the body-weight. The result of this procedure was a loss of vision in from three to fourteen hours—the exact interval before the onset of blindness not being ascertainable; this symptom was also commonly accompanied with other general disturbance within the same interval of time. In one instance the loss of vision remained practically complete for a period of twenty-nine days in consequence of a single dose of  $3\frac{3}{4}$  grains to the pound of body-weight. The ophthalmoscopic appearances were essentially like those found in man having amaurosis from quinine. In every case the pupil was immovably dilated. Each dog was killed—if he did not die from the effects of the drug—and a microscopical examination was recorded of the eyes, optic nerves, chiasma and occipital lobes. No gross lesion, with one exception, was found in the nerve, disk or retina; in the exceptional case there was in one eye a decided dilatation of the blood-vessels, with white thrombi in the smaller veins, while the central vein was plugged with a clot. A dilatation of the vessels, to a minor degree, was ob-

served in the optic disk in some other cases. No marked lesion was found when examining transverse sections of the nerves, except at times some edema was observed and a slight apparent increase in connective tissue. It is worthy of note, however, that even in dogs blind from quinine for a month and more, there was no appearance of atrophy of the nerve fibers, nor in the earlier stages was any neuritis discoverable. No abnormal change in the chiasma was observed in any instance. Sections of the cuneus showed in every instance a remarkable dilatation of the pericellular lymph-spaces, with degeneration of the protoplasm of the cell, and the lesion was most marked in the case of the dog that was longest blind. The author does not assert that he has in this lesion discovered the true pathology of quinine blindness, for the reason that he appreciates the room for imperfections in microscopical studies of this nature, but he believes that his observations will strengthen the position of those who have located the lesion in the optic nerve somewhere between the chiasma and the eyeball, and that edema enters into the question as being a part of the morbid alteration. It is also well to bear in mind that the peripheral circulation may possibly be affected, as instanced by that one exceptional case where a clot was discovered in the central vein. This was, without doubt, an extreme instance, and should a like change take place in the human subject, any chance of recovery from blindness would be nearly or quite hopeless.—*Jour. Am. Med. Association*.

**THE TREATMENT OF RETROFLEXION.**—Dr. Veit (*Festschrift d. Berlin. geburtshilf. Gesellschaft zum X internat. med. Kongress*, p. 59) notes that retroflexion of the uterus has become a surgical disease, and therefore, since all cases do not demand operation, precise indications for treatment must be laid down. Life is not endangered by this malformation; some retroflexions are readily cured by simple therapeutic measures; while, on the other hand, no operation can restore the uterus to position as long as it remains fixed. The most easy cases for permanent cure are those which occur before thirty, whether in relation to the puerperium or from more obscure causes. For the results of abnormal labors and mismanaged puerperia are not the sole causes of retroflexion. That malformation is occasionally found in new-born children, and not rarely at puberty. Here cause and effect may be confounded, for the beginning of menstruation can hardly go on so normally in a chlorotic girl with faulty position of the uterus as in a robust subject. In cases of retroflexion in young subjects the careful application

of the pessary is sufficient treatment, and half the cases so treated will be permanently cured after wearing the instrument frequently changed, for about a year. The operations are ventro-fixation, shortening of the round or utero-sacral ligaments, and Schücking's vaginal hysteropexy. The results are at the best faulty, for they can not make the uterus move freely at the same time that it lies in a good position between other viscera, bladder, intestines, etc. As long as a retroflexion is movable it requires but little treatment in a woman past the change of life. The pessary will act best when the uterus remains bulky and not atrophied. In virgins it is often best to dispense even with pessaries, and turning their attention to the condition of their genitals is most objectionable; the nervous system, if fortified by any means which divert the patient's attention from the local affection, will allow the trifling discomfort of the retroflexion to be well tolerated. Massage is of questionable value; it may increase the patient's nervousness, which is worse than the displacement. When pessaries are used, they will best avail if any pre-existing endometritis or metritis be cured. Fresh retroflexions after child-bed are the most favorable for treatment. Ergot should first be administered, nor should the pessary be applied till the eighth or tenth week, and when the instrument is changed a smaller pessary should be applied. Cutting operations are only justifiable when pessaries can not be borne and do no good. Retroflexion with fixation of the uterus may be left alone in a sterile subject; in a patient anxious to bear children and also suffering from malformation the case is different. The operations above mentioned have not been so generally adopted as to allow of judgment on their justifiability. Schücking's vaginal hysterectomy, which binds the fundus down forward behind the bladder, is bad on theoretical grounds. Freund and Frommel's shortening of the utero-sacral ligaments and forming of adhesions in Douglas' pouch, however, is more in accordance with reason.—*British Medical Journal*.

**TREATMENT OF MALIGNANT NEOPLASMS BY ANILINE INJECTIONS.**—Prof. Mosetig-Moorhof (*Wiener klin. Wochen.*, March 19, 1891, p. 224) presented two patients. One had a myeloid sarcoma of the chin; all visible traces of the new growth had disappeared. She had received in all fifty injections of methyl-violet solution, one to five hundred. About 120 grams of the solution were used. The other case, a man, had had a cysto-sarcoma of the sternal region. It completely disappeared. The sarcomatous infiltration of the muscles has through

retrogressive metamorphoses, subsided, leaving a few nodes, the size of beans, which are regarded as the residue of the stroma, that is, connective tissue. This patient had received twenty-one injections, or sixty-three grams. He reported the case of a woman, aged forty-seven, with an epithelioma of the nose. She had been under treatment thirty-four days; had received nine injections, each of three grams, and was considerably improved. Another case, male, aged fifty-eight, affected with carcinoma of the tongue; had had twenty-six grams of the methyl-violet solution injected into the tongue and on the floor of the mouth. Marked improvement followed. Out of sixteen inoperable cases two died, and fourteen have been improved. Any increase or dissemination of the neoplasm following the injections has never been seen. The injection treatment is not suitable for very vascular tumors, and should not be employed for those which spring from an inaccessible base, or such as require the needle to pierce a large serous cavity in order to reach them. The solution used is one to five hundred methyl-violet, and should be filtered through asbestos which has previously been heated to a red heat. A three-gram syringe with needles of various lengths is employed, and three to six grams are injected every second or third day, mostly from the periphery toward the center. In ulcerated neoplasms the needle should be introduced at a distance from the ulcer. Bad results from these parenchymatous injections have never occurred—at most, there has been slight redness or edema.

**Discussion.** Prof. Billroth did not consider Mosetig's cases as complete cures. A new growth can only be counted cured when all specific tissue elements have ceased to exist and been harmlessly resolved, and the previously infiltrated tissues remain as simple scars. There are but two new-growth diseases which we can heal, viz., syphilitic, by means of mercury, etc., and malarial, by means of quinine, etc. Billroth says: "I have treated a large number of cases by Mosetig's method, and three I recall perfectly. They were large, non-ulcerated sarcomas. I can only say that all three were made worse. In the treatment of ulcerated carcinoma by methyl-violet paintings and injections the results were also unsatisfactory. As regards the two cases given, the woman still has a tumor remaining. While it may be, as has been said, that it can not contract any more, nevertheless it has not entirely disappeared, but has only been reduced in size. In reference to the other case, we only saw it as a softened, ulcerating mass, and can not say whether it was tuberculous, syphilitic or sarcomatous. The result is good, but there still remains a thick, diffuse in-



filtration of the tissues, and before this has disappeared we can not speak of a cure."

Prof. Mosetig, in reply, stated that the case alluded to was undoubtedly a sarcoma, and that even if his two cases were not regarded as cured, it could not be denied that their condition had been very much improved.

**BEER VERSUS BRANDY.**—The manufacture and consumption of fermented liquors is sometimes urged in the interests of temperance, on the ground that it diminishes the use of distilled spirits. That such is not necessarily the case seems pretty clear from the statistics of the countries in which wine and beer are most largely consumed. The *Irrenfreund* has lately called attention to the alarming prevalence of drunkenness in Germany. The consumption of beer throughout the German Empire is a little less than half a pint per diem for the whole population—men, women, and children. Large quantities of wine are also consumed. There is probably no country where the conditions are so favorable for temperance, on the theory above alluded to. Nevertheless, Germany ranks third in the consumption of distilled spirits, consuming eleven liters, or twenty-three and one fourth pints per capita of the total population. Denmark consumes twenty, and Russia twelve liters per capita. Even if it be granted that the consumption of such an amount of wine and beer in Germany is in itself an unmixed benefit, it is not evident that the more deleterious forms of alcoholic indulgence are suppressed by it to any great extent.

Wine has been, from time immemorial, the national drink of France, as beer is of Germany, but the consumption of spirits is steadily and rapidly increasing in that country. The total amount consumed in 1890 is reported by the Minister of Finance at 37,395,000 gallons. In the department of the Lower Seine it amounted to three gallons per capita of the population.

Vienna is celebrated for its beer, and is in the midst of a wine-growing country. Of 516 men admitted to the city insane asylum in 1888, 143 are reported to have become insane exclusively through alcoholism, and in 93 more cases it is reckoned as a contributing cause. On the whole, it seems as if the friends of temperance would have to look in some other quarter for allies in the suppression of drunkenness.—*Jour. Am. Med. Association.*

**OPIMUM SMOKING IN PHTHISIS.**—Dill has obtained great improvement in several cases of phthisis by giving the patient tobacco to smoke which has been steeped in a solution of opium. In no case were any bad effects from the opium noticed.

**THE ACTIONS OF OPIUM AND MORPHINE IN THE INTESTINES.**—In spite of the extended use of opium and its alkaloids in diseases of the intestinal tract we have been, up to the present, very largely ignorant of the exact therapeutic action of these drugs, and the knowledge which we have experimentally gained has been but fragmentary. Neither has it been conclusively shown why opium, in these diseases, has been empirically given the preference to morphine, the latter drug being so easy of administration and always readily obtained in absolute purity.

To satisfactorily answer these interesting questions has been the effort of Dr. Wilhelm Spitzer, and the article in which he gives the results of his experiments was given the prize of the University of Breslau this year, and has subsequently been published in Virchow's Archives, Vol. 123, No. 3, 1891.

The article opens with a historical review of the experimental researches of the actions of opiates on the intestines of both cold and warm blooded animals in order to prove whether opiates do not exert, apart from the cerebro-spinal action, a local or regionary action by resorption. Further, the comparative study of the gastro-intestinal actions of opium and morphine, and also whether, as has been generally empirically accepted, the first-named drug is not weaker in its anti-diarrheic and anodyne properties than the latter. The review shows, however, that the works of previous writers do not satisfactorily or conclusively answer these questions.

While this portion of Dr. Spitzer's work is of great interest, we will turn aside from it and briefly consider the results of his experiments upon the human organism. Of these very many were upon healthy subjects. During certain fixed periods opium and morphine were given by the stomach and hypodermically and their constipating actions carefully noted. The cases were carefully chosen from among inmates of the almshouse and convalescents from hospitals. All were equally well nourished and received about the same amount of exercise, etc. Naturally, only such subjects were chosen who did not habitually use any opiates, and whose bowels were habitually regular, all being in the habit of defecating at certain fixed hours of the day. It was clearly proven by these experiments that opium given subcutaneously did not exert any greater constipating action than the morphine represented in the dose would have done.

The following is a brief *resumé* of the principal experiments.

1. In the majority of subjects defecation took place in the morning, and in order to

retard this action for twenty-four hours, 0.01 gram, or at the most 0.02 gram of morphine given subcutaneously was required. Twenty-six experiments upon sixteen different subjects with hypodermic injections of morphine resulted as follows: Three experiments with 0.004 gram, and two experiments with 0.006 gram resulted negatively. In ten experiments 0.01 gram was injected, and of these five resulted negatively and five positively. In the latter, the delayment of defecation was six hours in one case, twenty-four hours in three cases, and thirty hours in one case. With the hypodermic dose of 0.015 gram eight experiments were made, and in five instances constipation was induced, lasting eighteen hours in one case and twenty-four hours in three cases. In three cases, finally, a delayment of defecation lasting for twenty-four hours could only be produced by doses of 0.02 gram. In the majority of the experiments of this series the author began with small doses and gradually increased them until the desired effect was obtained.

2. The aqueous extract of opium was used hypodermically in twenty-three experiments upon fifteen different subjects. In order to delay the time of habitual defecation for twenty-four hours on an average, 0.1 to 0.15 gram was necessary. The lowest quantity injected was 0.025 gram in one case, and the result was negative. 0.03 gram was used eight times; once it occasioned a delaying of defecation for eighteen hours, but in the other cases it had no effect. Doses ranging from 0.04 to 0.08 gram were tried in several cases, but had no constipating effect. Injections of 0.1 gram caused a constipation lasting for twenty-four hours in two cases, but in two other cases it was without result. 0.15 gram was tried in two cases, causing constipation for thirty-six hours.

The above experiments demonstrate that the aqueous extract of opium given hypodermically does not constipate unless given in doses of 0.1 to 0.15 gram, and that then the action is the same as would be achieved by the morphine the drug contains, viz., 0.01 to 0.015 gram, or ten per cent. There is, therefore, no advantage in using the extract of opium hypodermically in place of morphine. Quite the contrary, indeed, for the author noted that frequently where 0.05 gram of the extract of opium had been injected, and in two cases only 0.03 gram, unpleasant accompanying effects were induced, such as dizziness, headache, and excitability; while in equally as constipating doses of morphine no accompanying symptoms other than sleepiness, and rarely vomiting, were noted. According to Spitzer, therefore, it is a mistake to use opium hypodermically in place

of morphine when a constipating action is desired.

3. Regarding the exhibition of opium *per os*, either in the form of the simple tincture, the aqueous extract, or pure opium, it was found that the constipating dose was somewhat smaller than that required in hypodermic injection of the drug. Often 0.06 gram produced the desired result. It was also shown that both the extract and pure opium were more active than the tincture.

4. Upon a large number of subjects who had previously been tested in the experiments on the constipating action of opium given internally, the comparative value of morphine given hypodermically was tried, and a comparison of the results of these with the experiments of the third and first series showed that opium given internally in any form produced constipation somewhat more easily than morphine given either hypodermically or *per os*. The experiments further showed that the accompanying symptoms produced by morphine, given either by subcutaneous injection or by mouth, were far more severe than those caused by opium when given by the mouth. The author, therefore, claims that in practice the exhibition of opium *per os* should always be preferred to the administration of morphine when a constipating action is desired.

Regarding pathologically quickened peristalsis, the etiology of the various forms of diarrhea alone showed that an easily induced anti-diarrhetic action results from the use of morphine, but the difference in intensity is slight. In all cases the aqueous extracts of opium acted the best. It was given in a mucilaginous vehicle (gum arabic), and in small doses of about 0.02 gram six times a day. In a few cases the extract was of decided greater efficiency than the other preparations.

In the treatment of diarrhea, morphine was given in sixteen instances to ten different patients—eight times internally and eight times hypodermically. To obtain the desired action, in three cases 0.01 gram of morphine *per os* was found necessary, in four other cases 0.015 gram, and in one case 0.03 gram. When given hypodermically similar results were obtained by 0.01 gram in two cases, 0.015 gram in one case, 0.02 gram in three, and 0.025 and 0.03 in one case each. In these as well as the following cases the treatment was always commenced with small doses, which were gradually increased until intestinal rest was obtained.

The aqueous extract was given internally in six cases and subcutaneously in eight cases. In the former instance the required dose ranged from 0.04 to 0.15 gram. Subcutaneously, a similar action was obtainable with 0.075 gram



and 0.01 gram in two cases each, 0.15 in one case, and 0.2 gram in three cases.

The simple tincture of opium was given in twelve cases. In five of these 0.5 gram was sufficient to check the diarrhea, in four 0.75 gram, in one 1.0 gram, and in two 2.0 grams accomplished like results.

Pure opium, which of course was only given internally, exerted an action similar to that of the aqueous extract when given similarly.

From these experiments it will be seen that in cases of diarrhea, opium, only when given *per os*, acts somewhat better than morphine, but that otherwise their actions are equal.

As an intestinal anodyne, when given internally, opium acts somewhat more rapidly than morphine *per os*. When, however, the pain is intense, and a rapid therapeutic action is desired, subcutaneous injections of morphine of 0.01 to 0.015 gram were found to be the most efficient remedy.

Spitzer's experiments with other alkaloids of opium, including codeine, papaverine, narcotine, and narceine, resulted negatively, at least in doses which were free from unpleasant accompanying effects.

In opium and morphine we have one of our main bulwarks of therapeutics, and any thing throwing light upon their exact therapeutic value and use can not fail but be of more than ordinary interest and practical service to the busy practitioner, and the profession is certainly indebted to Dr. Spitzer for some exceedingly valuable data.—*Med. and Surg. Rep.*

DIET AND ANIMAL TEMPERATURE.—A question has been put to us by a correspondent, Mr. Walter Fenton, whether the animal temperature of persons who subsist on a vegetable diet is lower than that in animal or mixed feeders. The inquiry has never been investigated in the human species on a sufficiently comprehensive scale to be of any value, but such comparative facts as throw light on the matter tend to indicate that vegetable feeders among the lower creation have a high temperature. Dr. John Davy, brother of Sir Humphry, and one of our keenest physiological observers of a past day, was among the first to make comparative observations of the temperature of different animals in their normal state; and to a certain extent John Hunter, Pallas, Despritz, and Samuel Metcalfe carried out the same research. In 1869 Dr. B. W. Richardson, in one of his lectures on Experimental and Practical Medicine, classified the results of most of these previous authors, and tested them by a new series of direct observations. His table of mean results showed that vegetable feeders have a high temperature. The sheep gave a temperature of

104°; the goat of 104°; the pigeon 108°; and the common fowl 108°. The rabbit showed 103°, while the dog and the cat, animal or mixed feeders, showed 102°. But some herbivora were comparatively low; the ox, for example, 101°, and the horse 100°. The differences here stated were supposed by the last-named observer to depend on the cutaneous covering of the animal more than on any other cause. In the case of the pigeon, on which this author made ninety-four observations, the high temperature was attributed to the non-conducting character of the feathers, a marvelous protection to a swift flying animal in a cold atmosphere. In man, from one-hundred observations, he came to the conclusion that in a strictly natural state 98° F. was the truest standard. These researches are useful as comparative studies; still, it is an open question whether in man, or in any species of animal that can live on a mixed diet, there is a variation of temperature, according to mode of diet; and it would be a good work to inquire on a large scale if, under a purely vegetable form of dietary, the temperature in man is reduced. Our correspondent informs us that in him (a healthy man) and in his wife (a healthy woman), both in the prime of life, the temperature now ranges from 96° to 97.4° F. He for three years and a half, and she for two years and a half, have been total abstainers from alcohol, and have subsisted on fruit and vegetables, with addition of "butter, cheese, milk, eggs, and a little fish." Previously to adopting this system his temperature had never fallen under 98° "in so far as he remembers," and he therefore is inclined to the view that under his new *regimé* he lives as healthily as before, at a lower expenditure of energy. If such prove to be correct, and if it should be demonstrated that a minimum animal diet (for our correspondent, be it observed, is not strictly a vegetarian) will support life efficiently under reduced combustion and reduced waste of material, a valuable as well as curious fact will be added to our practical knowledge. Evidently there is here open a fine field for a patient, perfectly unbiased and truthful investigator.—*Lancet*.

A CASE OF SUBCUTANEOUS EMPHYSEMA OF THE NECK AND THORAX.—Dr. Joseph Coats was called into examine the body of a female infant seven months old, who had died under the following peculiar circumstances. She was taken ill one evening with an attack of dyspnea, from which she partly recovered; next morning she was evidently suffering considerably, but without extreme dyspnea; there was, however, swelling of the neck, left side of the head, and upper part of the chest due to surgi-

cal emphysema. After three or four hours of extreme suffering she died, some eighteen hours from the first attack of dyspnea. On opening the chest, the anterior mediastinum was found to be filled with air, and the left lung was greatly distended, being the seat of an interstitial emphysema. The other lung was quite free from emphysema. On removing the left lung there was found extensive tuberculosis about its root, the bronchial glands proved to be enlarged and highly caseous, and some were softening. A wedge-shaped area of the lung in its posterior part was condensed and caseous. It was further found that an adherent gland had undergone softening, and had discharged into the bronchus in the neighborhood of the consolidated area; and the emphysema must have resulted from the perforation of the capsule inclosing the remains of the gland. There was nothing much in the history to throw light upon the case: the child had ailed somewhat, but with no very definite symptoms, and it was surmised that the tuberculous infection might have been received through milk.—*Glasgow Medical Journal*.

**EXALGINE IN PEDIATRICS.**—Dr. Moncorvo, in the *Bulletin Général de Thérapeutique*, reports a series of cases illustrating the beneficial action of exalgine in various painful affections in children. Without exception the drug was always well tolerated. In not a single instance did it produce those unpleasant symptoms so frequently seen to follow its use in adults, such as apparent drunkenness, roaring in the ears, darkening of the face, etc. The remedy was given to the children in doses ranging from 5 to 30 centigrams. As the drug does not taste badly, it was given in substance or administered in a little wine.

In all cases the action of exalgine was far superior to that of antipyrin, as in medium doses it acted equally as well as five times the same quantity of antipyrin.

In one case of incipient chorea in a little girl, the choreic movements ceased entirely after five days' use of the drug, 20 centigrams having been given daily. On the strength of his observations, Dr. Moncorvo strongly recommends the use of exalgine in pediatrics.

**CHATININE, AN ALKALOID OF VALERIAN ROOT.**—M. Waliszewski, a pharmacist of Clichy, has isolated an alkaloid from valerian, and named it chatinine, in honor of M. Chatin, late director of the *Ecole de Pharmacie* of Paris. To obtain it, he removes from valerian root, by distillation, its valerianic acid and volatile products. Then he exhausts the root by decoction in distilled water, and clears the

liquid with acetate of lead. The lead is eliminated by sulphuric acid or sulphuretted hydrogen. The filtered liquor is evaporated to the consistency of a soft extract, which is treated by 90 per cent alcohol. The filtrate is distilled and the residuum is taken up with distilled water; this product is distilled to the consistency of an extract and treated with bicarbonate of soda and ether; the ether is washed with distilled water; the liquid is now evaporated and the residuum, which is chatinine, is treated by an acid, preferably hydrochloric. As valerian root contains an ammoniacal salt, which remains with the chatinine during the above operations, the product must be treated with 95-per-cent alcohol, in which the chloride of ammonia remains insoluble. The chatinine salts have the general characters of the alkaloïds, and, like them, are precipitated by picric acid, bichloride of platinum, Valser's reagent, tannin, Bouchard's reagent, etc.—*Union Phar.*, March 15th. *Répert. de Phar.*

**COCAINE INCOMPATIBLES.**—Cocaine is used in manifold mixtures, and often brought in contact with substances with which it is entirely incompatible. A. Bruner states that it is frequently prescribed with silver nitrate in ointments, when, as is probably not known to the prescriber, decomposition of the hydrochloride ensues, with formation of insoluble chloride of silver and a corresponding change in the cocaine. E. Schell, in the *Els.-Loth. Journ. d. Pharm.*, reports that if calomel and cocaine hydrochlorate are rubbed together chemical reaction sets in. Mercuric oxide too, if dispensed in form of ointment containing cocaine hydrochlorate, changes, so that the ointment, instead of producing an anesthetic effect upon the eyes, produces an exceedingly irritating one. This is due to the formation of oxychloride of mercury, the quantity of which depends on the amount of cocaine used, the intimacy of its mixture with the oxide, and the age of the ointment.—*Apoth. Ztg.*

**PRURITUS SENILIS.**—The *Deutsche medizinische Wochenschrift* gives the following treatment:

1. Starch or bran baths once a day.
2. At night the body should be washed with water at 104° temperature, to which the following has been added:

Carbolic acid.....	5 i.
Aromatic vinegar.....	5 vi. M.

3. A powder should then be dusted on containing

Salicylate of bismuth.....	5 iiss.
Starch.....	5 i. M.



# The American Practitioner and News

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H. A. COTTELL, M. D., } - - - Editors.

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## ANTI-KAMNIA.

The American Practitioner and News to date has maintained a discreet silence as to a "new combination of coal-tar derivatives" which, emanating from St. Louis, seems to have captivated such physicians as run after well-advertised therapeutic novelties.

If the reason for this be asked, our answer is that we have been expecting and awaiting such confirmation of our suspicions as to the nature and possibilities of the new wonder as seems to be found in the following accounts.

The first is from a paper by William A. Hall, Ph. B., which appeared in the *Druggists' Circular and Chemical Gazette*, May, 1891:

AN EXAMINATION OF ANTI-KAMNIA.—Antikamnia comes put up in one ounce, metal, screw-capped boxes, and consists of a snow-white powder showing particles of broken crystals. It is said to be "analgesic, antipyretic, and anodyne; valuable in neuralgia, myalgia, sciatica, acute rheumatism, hemicrania, also headache and other neuroses due to irregularities of menstruation. It will reduce temperature and relieve pain with the greatest certainty and celerity, and has no evil after-effects."

Preliminary examination showed the absence of alkaloids and presence of carbonates or bicarbonates and a crystalline substance insoluble in water, but soluble in alcohol and chloroform.

One gram was digested with distilled water for several hours, with frequent stirring, filtered, and the residue thoroughly washed with distilled water and dried to constant weight at 100° C. The filtrate and washings were titrated with oxalic acid, using litmus

as an indicator. The addition of the acid produced effervescence indicative of a carbonate, but previous tests applied to the filtrate showed it to be a bicarbonate and not a carbonate. The flame test showed sodium strongly. . . .

The portion of residue insoluble in water, heated in a porcelain dish with a solution of mercuric nitrate, developed a greenish-yellow color gradually deepening with reddish streaks and edges inclining to purple, continuing until a dark cherry resulted. On now adding a few drops of concentrated HNO<sub>3</sub>, further oxidation occurred with the production of a deep chrome-green color. A parallel comparison with acetanilid showed the same changes of color throughout. A portion mixed with equal volumes of concentrated H<sub>2</sub>SO<sub>4</sub> and alcohol and heated, gave the characteristic odor of ethyl acetate. The melting point of the portion soluble in absolute alcohol was 110° C. It solidified again at 105° C. into a mass of pearly plates freely soluble in chloroform.

A portion was dissolved in hot water, and a solution of chlorinated lime added, which gave a white precipitate, changing quickly to light-green, then to a brownish color inclining to mahogany, soluble in ether to a brownish-red fluid. If, after adding the chlorinated lime, dilute HCl be added the precipitate re-dissolves, but the other changes are the same.

To a portion of the solid alcoholic residue an equal bulk of KClO<sub>4</sub> was added and a small quantity of dilute HCl, and the mixture gently warmed, when a red resinous-looking mass resulted.

Parallel trials with acetanilid showed similar results in these last tests. . . .

From this investigation the composition of antikamnia then appears to be as below:

Acetanilid .....	77.55 per cent.
NaHCO <sub>3</sub> .....	19.32 per cent.
NaCl .....	1.30 per cent.
Na <sub>2</sub> SO <sub>4</sub> ·10H <sub>2</sub> O .....	0.83 per cent.
Moisture .....	0.80 per cent.
Loss .....	0.20 per cent.

100.00

The small amounts of sodium chloride and sodium sulphate indicate that they are impurities of the sodium bicarbonate used, rather than separate additions to the compound. This would be equivalent to a salt of 90.07 per cent strength. About the only apparent therapeutic object of the sodium bicarbonate is to make the acetanilid more soluble, and thus of quicker effect. Commercially, of course, the object of adding the sodium salt is plainer with antikamnia at \$1.00 per ounce, and acetanilid about the same price per pound.

In practice antikamnia appears to act more promptly and in a smaller dose than acetanilid, especially when the latter is administered without trituration, and this is due to its being in a fine powder and also to the presence of the bicarbonate of sodium, both of which cause it to enter into solution quicker, and therefore exhibit the physiological effect sooner. One of our physicians who has tried the two side by side accepts this as the most plausible view, and while acknowledging the therapeutic value of antikamnia, deprecates its being sold for so high a price, and prefers to prescribe acetanilid and sodium bicarbonate.

The other is a communication from Dr. E. P. Easley, an eminent practitioner of New Albany, Ind. It is a pretty toxicological comment on

the foregoing, and finds fitting place at the close of Mr. Hall's paper:

*Editors American Practitioner and News:*

On the 6th of last April, Mrs. Z., a stout, robust woman, weighing one hundred and sixty-five pounds, twenty-two years old, took, by mistake, for a slight headache, twenty-four grains of antikamnia. In a few minutes she became wildly delirious, then unconscious, and died in ten hours after swallowing the medicine. A careful, methodical *post-mortem* examination failed to discover any lesion, death being the result of the action of the drug alone. The greater portion of her body was cyanosed. The membranes of the brain were of a sky-blue color, as were all the fibrous structures wherever found. The right ventricle was filled with clotted blood very much bleached.

August 20, 1891.

E. P. EASLEY, M. D.

Extended comment upon the above is unnecessary. A manufacturer who is trying to get a dollar an ounce for something that costs him a dollar a pound may not be blamed; but we submit that it is about time for doctors to quit prescribing preparations of the composition of which they are as ignorant as the unfortunate patient who pays more than sixteen prices for them, if mayhap he do not find his life to be the price of his physician's faith in therapeutic unknown quantities.

We are glad that the above fatal case can not be charged to a physician's prescription, but it is safe to say that if the doctors at New Albany had not been prescribing "antikamnia" the unfortunate woman would never have heard of or taken the drug.

It might further be suggested that a drug or combination of drugs, which may kill in a single dose of twenty-four grains, can not be safely prescribed in repeated doses of five to ten grains, while its sale over the counter should be restricted to the terms of the State laws regulating the sale of poisonous drugs.

#### CENTRAL KENTUCKY MEDICAL SOCIETY.

Elsewhere in this issue appear three of the papers read at the July meeting of this Society, with the discussion called forth by them.

The Society represents much of the best talent in the State, and is doing a good work for scientific medicine. Through the kindness of the secretary we shall be able to give our readers regularly its valuable proceedings. Papers by Drs. Bailey, Purdom, and Meyers will appear in issues of the near future.

#### Notes and Queries.

**THE SIMIAN TONGUE.**—Prof. R. L. Garner furnished a paper to the *New Review* upon the Simian Tongue, in which he gives some details of his efforts to discover whether "articulate" speech prevails among the lower primates, and whether such speech, if existing, contains the rudiments from which the languages of mankind could easily develop. The result of his efforts encourages him to think it is quite possible to find proofs to show that such is the origin of human speech.

Having long believed that each sound uttered by an animal had a meaning which any other animal of the same kind would interpret at once, and observing that animals soon learn to interpret certain words of man and to obey them, replying in their own peculiar speech, Garner thought, if he could correctly imitate these sounds, he might learn to interpret them more fully and prove whether different species of animals had a uniform speech.

He made little progress in his studies in various zoological gardens at different places, until it occurred to him to avail himself of the aid of the phonograph. By recording on phonographic cylinders the sounds made by monkeys, he was better able to learn to imitate them himself, and at the same time by repeating with the phonograph the record made by one monkey to another it was possible to study the behavior of the latter more closely.

In this way sounds indicating "thirst," "hunger," "sick," "weather," "alarm," etc., were picked out. The capucine monkey was found to be the most favorable for study, apparently having the best defined language of any of his genus. The chimpanzee is said to have a strong but monotonous voice, confined to a small range of sounds, and affords a fine study while in the act of talking, but there are only three in America at present.

Garner concludes, as the result of his observations, that the Simian tongue has about eight or nine sounds, which may be changed by modulation into three or four times that number; they seem to be half way between a whistle and a pure vocal sound and have a



range of four octaves and probably all chord with F sharp on the piano. The sound used most is very much like "u"—"oo," in "shoot." The next one something like "e" in "be." No "a," "i" or "o" was distinguished. Faint traces of consonant sounds can be found in words of low pitch, but they are few and quite feeble.

The present state of speech has been reached by development from a lower form. Each race has its own peculiar language, slightly shaded into dialects, and the radical sounds do not have the same meanings in all. The words are monosyllabic. The phonic character of the speech of monkeys is very much the same as that of children in their early efforts to talk, except as regards pitch. It seems to obey the same laws of change and growth as human speech.

When caged together one monkey will learn to understand the language of another kind, but does not try to speak it. His replies are in his own vernacular. They use their lips in talking in much the same way as men do. Their speech is in about the same relative condition to their physical, mental and social state as that of man, and the more fixed and pronounced the social and gregarious instincts in any species the higher the type of speech. They reason from cause to effect, and their reasoning differs from that of man in degree but not in kind. The state of the language of monkeys seems to correspond with their power to think and to express their thoughts.

These reflections, if well founded, lead, of course, to the conclusion that the languages of mankind may be the progeny of the Simian tongue with as much probability as that the races of mankind may be the progeny of the Simian stock.—*Bo-ton Med. and Surg. Journal.*

**ARISTOL IN DISEASES OF THE EAR AND NOSE.**—Aristol was so warmly recommended to me as an antiseptic and a cicatrisant that I felt impelled to institute extended trials of it in polyclinic and in practice for patients suffering from diseases of the ear and nose.

Rohrer was the first to announce the results obtained by the use of aristol in ear diseases. He used it in acute and subacute middle ear

inflammations by insufflation, after drying the cavity. There resulted a rapid decrease of secretion and tumefaction, and an early healing of the perforation.

Aristol was quite as serviceable in otitis externa and ozena. Rohrer reports twenty cases in which the effect of aristol was better than that of the usual remedies, especially boric acid, iodoform, and iodol.

Pirii, in one hundred and eighty-two cases of rhinitis ulcerosa, ozema of the nose, obtained very good results from the use of aristol in powder and aristol ointment. Massini obtained excellent results in fetid rhinitis by the use of aristolized tampons.

I have employed aristol as a powder and as an ointment, and have also used it intimately mixed with glycerine. In eight of my cases the suppuration was promptly removed. In fourteen cases the result was gained, but not so rapidly. In ten cases there was some increase of secretion.

Aristol proved to be exceedingly valuable, as also stated by Szenes, in determining the formation of granulations in the tympanic cavity or auditory canal. Of twenty-two cases (of whom a portion had been treated by lunar caustic with little benefit) thirteen showed under aristol a very rapid improvement. Within a few days the proliferations had completely or very considerably dried up. In six cases there was a somewhat less marked improvement. In three cases of otitis diffuse externa with suppuration the condition yielded quickly to treatment by aristol.

I obtained very satisfactory results from the use of aristol in nasal diseases. I tested it in twenty-six cases of which three were nasal syphilis, fifteen were non-syphilitic ozena, and eight were cases of granulative formations.

The effect of aristol in a large majority of the above cases was really surprising. The aristol powder is much better borne than is the case with the sozoiodol salts or the acetico-tartrate of aluminium, for which I once had a preference. Headache occurred very rarely, and lachrymation was insignificant as compared with what we get from other remedies used in the form of powder.

After the first treatment by aristol the fetor

often disappears at once for twenty-four hours. On longer treatment the fetor vanishes for days at a time, and cure is finally obtained. The appearance of the mucous membrane quickly improves on the atrophic surfaces, as well as in their neighborhood, when the surrounding tissue is hypertrophied. I prefer aristol to acetico-tartrate of aluminium in these cases, for the latter is very irritating.

Ulcerous conditions of the syphilitic origin showed a remarkable tendency to heal after a very short use of aristol. This remedy is, in these cases, second to none of those usually employed.

As in ear cases, so also in nasal cases, the proliferations of granulation tissue were very rapidly improved by the use of aristol. In many of my cases the granulations were permanently removed by insufflation of aristol, or by tampons impregnated with that preparation. I noted that aristol excited a less considerable hypersecretion than other remedies, such, for instance, as iodoform or the acetico-tartrate of aluminium.

For affections of the nose aristol constitutes a noteworthy enrichment of our treasury of therapeutic agents, and I would also recommend its use in aural therapy, in which it should receive a very extended trial.—*Prof. K. Burkner, Göttingen University Clinic for Diseases of the Eye and Ear, Berlin Klin. Woch.*

**THE INFLUENCE OF DIET ON THE GROWTH OF HAIR.**—(E. D. Mapother, M. D.) Several cases of shedding of hair after influenza have confirmed my opinion that diet has much to do with the production and with the cure of symptomatic alopecia. Hair contains 5 per cent of sulphur, and its ash 20 per cent of silicon and 10 per cent of iron and manganese. Solutions of beef, or rather of part of it, starchy mixtures, and even milk, which constitutes the diet of patients with influenza and other fevers, can not supply these elements, and atrophy at the root and falling of hair result. The color and strength of hair in young mammals is not attained so long as milk is their sole food. As to drugs, iron has prompt influence. The foods which most abundantly contain the above-named elements are the various albu-

minoids and the oat, the ash of that grain yielding 22 per cent of silicon. With care these foods are admissible in the course of febrile diseases, when albumen is the constituent suffering most by the increased metabolism. I have often found a dietary largely composed of oatmeal and brown bread to greatly promote the growth of hair, especially when the baldness was preceded by constipation and sluggish capillary circulation.

Those races of men who consume the most meat are the most hirsute. Again, it is well known in the zoological gardens that carnivorous mammals, birds, and serpents keep their hair, feathers, or cuticle in bad condition unless fed with whole animals and the egesta contain the cuticular appendages of their prey in a digested or partly digested state. It is also an old, well-proven fact that a closely restricted diet, cheese for example, soon produces in dogs a loss of hair.

In treating fevers a long course of non-nitrogenous diet may promote seborrhea, which is so often a concomitant of the alopecia. When the special nutritive supply is secure, the depressed condition of the vaso-motor and trophic nerves proceeding from the cervical ganglia to the scalp may be stimulated by blisters and liniments at the back of the neck. I have always found that friction of the scalp with pomades and lotions dislodges many hairs which might otherwise remain, and that cold or tepid baths with salt added and rough rubbing of the rest of the body will flush the capillaries of the affected part more effectually. Besides, when pomades are used frequent washing becomes necessary, and this is conducive to baldness.—*British Medical Journal.*

**A CASE ARBITRATION.**—Last week we took occasion to note the result of a recent trial for malpractice, and on account of its fairness and justice published in full the decision of the Appellate Judge who heard the case. This week we note another instance in which suit was brought against one of the most prominent physicians in this city, and by consent submitted to a board of three physicians chosen to act as arbitrators. A large amount of testimony was heard, the trial occupying an entire



week. In the finding the arbitrators unan- imously decided that the defendant was not guilty as charged by the plaintiff; the plaintiff alleging that the defendant had improperly diagnosed and treated the case. The arbitrators found the defendant's diagnosis to be correct and the treatment in perfect accord with laws of medical science.

The method of settling disputes by arbitra- tion is one commonly adopted by merchants and others engaged in the common business affairs of life, and is highly satisfactory to all concerned except the attorneys. This is the first instance within our knowledge where this plan of settlement has been adopted in a case where an individual believed himself unskil- fully treated by a physician.

Such a method of settlement should always be resorted to when it is possible to do so, and allow no case to be brought before any other tribunal unless the plaintiff give bond for all the costs incurred by the defendant where the case is decided in defendant's favor.—*Medical Record*.

DR. MAX RUBNER, director of the Hygienic Institute at Marburg, has been appointed to succeed Dr. Robert Koch as professor of hy- giene in Berlin. He was born at Munich in 1854, established himself as a private lecturer in the University of Munich in 1883, was appointed extraordinary professor at Marburg in 1885, and ordinary professor in 1887. Koch has resigned his official positions in order to take the direction of the Institute of Infectious Diseases which has been organized by the Ger- man Government. It is stated that the Aca- demic Senate will bestow an honorary office upon Professor Koch, and that this will per- mit him to lecture whenever and wherever he pleases.

WEEKLY COST OF CARE OF THE INSANE IN AMERICAN ASYLUMS.—From the late report of the Committee on Lunacy of Pennsylvania we learn that the *per capita* weekly expense of maintenance in the principal State Hospitals was (1890) as follows: Harrisburg, \$3.81, Danville, \$3.31, Norristown, \$3.61, Warren, \$3.26, Dixmont, \$4.31—the average being

\$3.66. This was for an average aggregate hos- pital population of 4,879. In New York the average cost for 1,907 insane in four hospitals was \$5.09. In Michigan, three hospitals, 2,328 patients, \$3.84. In the Government Hospital at Washington, with 1,475 inmates, the cost was \$4.23. In Wisconsin, the cost was \$3.76; in Indiana, \$3.96; in Massachusetts, \$3.60; in Connecticut, \$3.20; in Minnesota, \$3.15; in Ohio, \$3.39; and in Illinois, \$2.95. The great lessening in the cost of maintenance is in some cases due to the self-supporting labor done by the chronic insane. It is a strange in- humanity that frequently and indeed generally supports thousands of idle people, when their labor rightly and judiciously applied would be a blessing to the one laborer who is supported and to the other outsider who is taxed for the supporting. Let the able ones be put to work. *Philadelphia Medical News*.

CHLOROFORM IN THE CASE OF THE LATE MR. W. H. GLADSTONE.—The daily papers, commenting upon the death of Mr. W. H. Gladstone, contain the statement that "the patient never regained consciousness, and died, his heart being too weak to stand the effects of the chloroform." Upon inquiry into the mat- ter we find this statement to be absolutely mis- leading. The facts of the case were given by us in our last week's issue, so we need only add, as regards the chloroform, that it was admin- istered with perfect success on the Thursday, and that Mr. Gladstone came out of its effects quite satisfactorily during that day, that he was conscious both on the Thursday and Fri- day, July 2d and July 3d, and that his death on July 4th was from causes quite remote from any connected even indirectly with the anes- thetic employed. Chloroform in combination with morphine was used to lessen vascular con- gestion, a desideratum in surgical procedure upon the brain. The mischievous effects of rumors such as the one we have now contra- dicted are considerable. Persons become un- duly alarmed, and are thus placed in the most disadvantageous condition for taking an an- esthetic. The perils of anesthetics are real enough; but it must be remembered that fatalities are very few indeed when compared

with the enormous number of times that nitrous oxide, ether, and chloroform are daily administered. It is matter of regret that persons unfamiliar with anesthetics and their action should jump to the conclusion, as is often done, that every death occurring at the time of or immediately after a surgical operation is necessarily the immediate result of the anesthetic.—*Lancet*.

#### PREDISPOSITION TO DISEASE IN THE NEGRO.

From an analysis of the diseases of 430,466 colored patients treated by the medical department of the Bureau of Refugees from 1865 to 1872, Dr. Reyburn, late Surgeon U. S. Volunteers, makes some valuable comparisons as to the alleged predisposition of the African race to certain types of disease. Comparison is made with the diseases (22,053 cases) of white refugees. Among the negroes there were 152,141 cases of remittent and intermittent fever, and the conclusion is reached that no difference in susceptibility to these fevers exists between the colored and the white people of the Southern States. In like manner the relative statistics disprove the statements commonly made concerning the extreme liability of the colored race to scrofula and pulmonary tuberculosis. The deaths from typhoid fever were 951, or nearly twenty five per cent of the cases treated, the high mortality being dependent upon the intestinal lesions. The death-rate from diarrhea and dysentery was also high, which Dr. Reyburn ascribes to the ignorance of the colored people of the laws of hygiene and the use of improper articles of food. The colored freedman and the white refugee alike succumbed quickly to epidemic cholera. Under every variety of treatment about one half of the patients died.

The remarkably small number of cases of delirium tremens among the negroes is charged by Dr. Reyburn to "the want of development of the cerebral hemispheres." "Delirium tremens is pre-eminently a disease causing disorder of intellection, and hence the continued abuse of alcoholic drinks in the negro race is more apt to produce epileptiform convulsions or mania than delirium tremens."

The conclusion is reached that the negro race does not withstand the attacks of acute

inflammation, such as pneumonia, nor do they recover from long-continued illness, such as typhoid fever, so well as the white race; but, on the other hand, the negro's power of repair after injuries and following surgical operations is believed to be superior to that of the white. *Philadelphia Medical News*.

THE FORM OF DYSENTERY PRODUCED BY THE AMEBA COLI.—Dr. W. T. Councilman, in the *Journal of the American Medical Association*, contributes a paper on the symptoms which are produced by the presence of the ameba coli in the intestines. Clinically, the disease is chronic; it begins with diarrhea, and is intermittent in character, lasting for a month or so, then ceasing, and finally breaking out again. There is no pain in the earlier stages, but this symptom appears later. The diarrhea gradually becomes worse, and there is much tenesmus. The stools are mixed with blood. There is usually no fever in the entire course of the disease, but progressive wasting is a prominent symptom. The duration is from three to six months. Toward the last the complexion assumes a dull, earthy-like color. There is nothing distinctive in the stools; they are always fluid and considerable in amount. When these patients die the anatomical lesions are characteristic. There is entire absence of diphtheritic exudation; the surface of the bowel shows numerous ulcerations. These ulcers are small in size, and their surface is mammillated; there is loss of substance at the apex of these elevations, the depression being filled with an opaque, grayish, gelatinous mass. The entire intestine is much thickened, especially the muscular coat. Large ulcers are sometimes found running into each other, so that long sinuous passages are formed, running through the intestines in various directions. The ulceration extends to the muscular coat, large sloughs being sometimes cast off. The most frequent complication is abscess of the liver. The abscesses are multiple and are filled with a gelatinous-looking mass. The next most common complication is abscess of the lung, this formation being derived from an extension of the liver abscess through the diaphragm. It is very insidious in its onset; there are always



pyrexia, much sweating, and abdominal pain. The sputum is characteristic, being tough, of dingy cherry-red color, and very tenacious. The cause of this disease has long been suspected. Davaine, in 1853, described the cercomonas in the stools; Lander, in Prague, found small amebæ in the stools of a child which had died of dysentery. Larsch, of St. Petersburg, was the first to describe the parasite. It is an ameba  $\frac{1}{1000}$  to  $\frac{1}{400}$  of an inch in length. It is either round or undergoing rapid movements. The outer part is a homogeneous mass, and the inner part is filled with granular matter. The movements are active, and its large size makes it easy to study under a low power of the microscope. It may be seen to change its form and shape. It puts out its pseudopodia and draws them in again. It is found in the stools and in the abscesses of liver and lung. Dr. Councilman thought this form of disease was not so uncommon as it was generally considered. He had not yet succeeded in finding the geographical range of the disease.

**THE INFLUENCE OF SMOKING ON PHYSICAL DEVELOPMENT.**—From the records of the senior classes of Yale College during the past eight years, the non-smokers are proved to have decidedly gained over the smokers in height, weight, and lung capacity. All candidates for the crews and other athletic sports were non-smokers. The non-smokers were 20 per cent taller than the smokers, 25 per cent heavier, and had 66 per cent more lung-capacity. In the graduating class of Amherst College of the present year, those not using tobacco have in weight gained 24 per cent over those using tobacco, in height 37 per cent, in chest-girth 42 per cent, while they have a greater average lung capacity by 8.36 cubic inches.—*Philadelphia Medical News.*

**TUBERCULAR INFECTION FROM MILK.**—A great deal has been recently said by many prominent members of the profession concerning the inutility of adapting extreme measures for the prevention of tuberculosis, some of whom have held that both tuberculous meat and milk may be partaken of with impunity and without harm to the consumer. The fol-

lowing case, which we quote from the *Allgem. Medicinischen Central-Zeitung*, will be of interest to optimistic members.

The case was recorded by Dr. Olliver in a recent meeting of the Academie de Médecine of Paris. The patient was a young woman, twenty years of age, with acute meningitis. The girl was of a strong constitution, and had no constitutional trouble. She had been educated at a boarding-school. Upon inquiry it was learned that within the course of a few years thirteen pupils in the same school had been infected with tuberculosis and six had died. The milk supplied to the school was from cows kept on the place. Upon examination these animals were found to have tubercular ulcers on their udders, and after being slaughtered were found to be generally infected by the disease.

**TOBACCO AND PHYSICAL HEALTH.**—Dr. J. W. Seaver, the college physician and instructor in athletics at Yale, has made a comparative study of the users and non-users of tobacco in the present Senior Class for the past four years, and from his measurements he forms the following table:

Average increase in	Users of Tobacco.	Non-users of Tobacco.
Lung capacity, liters.....	.15	.25
(Or an increase 66 per cent greater for non-users.)		
Inflated chest, meters.....	.0304	.0364
(Or an increase 19 per cent greater for non-users.)		
Height, meters.....	.0169	.0202
(Or an increase 20 per cent greater for non-users.)		
Weight, kilograms.....	.4	.5
(Or an increase 25 per cent greater for non-users.)		

With regard to the possible effect on scholarships these statistics were given: Of those who received Junior appointments above dissertations, 95 per cent have not used tobacco; of those above colloquies, 87½ per cent have not used tobacco; of all who received appointments, 84⅓ per cent have used tobacco; of the entire class, 70 per cent have not used tobacco.

Dr. Seaver says that these figures accord with statistics that he has kept for the past eight years, the greatest percentage of gain always being on the side of those who do not use tobacco. The greatest variation in the two

years' widest part has not been more than four per cent. Some of the students who are classed among the non-users do smoke, but not oftener than once a week, or at such long intervals that the tobacco is apt to have little or no effect on them. Dr. Seaver states that the prominent athletes do not smoke or otherwise use tobacco as a rule, Calhoun being the only exception in college. All the candidates for the crew abstain from tobacco.—*New York Times*.

**BORAX IN EPILEPSY.**—Dr. Dijoud has tried this remedy in twenty-five cases, and he claims to have entirely cured one, and to have relieved all except six. The duration of the treatment varied from one to seven months, and he was able without inconvenience to carry the dose up to ninety grains a day. This was only possible if a beginning were made with small doses, which were gradually increased; and when the dose exceeded sixty grains daily he found it advisable to add some glycerine to the water and syrup in which the drug was usually administered. It should also be mentioned that the patients to whom Dr. Dijoud administered borax had been treated unsuccessfully with the bromides, and there seems now to be little doubt that in certain cases of epilepsy borax is of very considerable use. It is desirable that particulars should be furnished of the time that elapsed between the cessation of the treatment by bromides and the inauguration of that by borax, as it is well known that epileptics who have been treated with bromides often improve much in their condition after the drug has been left off; and it is necessary to distinguish this improvement, which at least occasionally occurs, from that which may be due to the administration of a fresh remedy.—*London Lancet*.

**HAS INFLUENZA AN EXTRA-MUNDANE ORIGIN?**—Among the many ingenious hypotheses put forward to account for the origin and spread of influenza, it is interesting to observe one which approximates to a certain extent to the doctrines of those early Italian physicians who assigned a name which has the merit of vagueness and nescience—a name for which even now we are not prepared to find a better substitute. It would appear, however, that

there is something still to be said for an extramundane origin of this mysterious affection; and the case has been well put by Mr. G. H. Willis, who adduces facts from Dr. Parsons' report to prove not only that the spread of the disease is unaffected by aerial currents, but in opposition also to Dr. Parson's contention that it is mainly propagated along the lines of human intercourse. Mr. Willis suggests (*The Times*, July 10th) that the disease which visits so suddenly and simultaneously so many parts of the earth may take its rise in the intrusion into the atmosphere of some poisonous gas of such density as to penetrate, in spite of the law of diffusion, to the surface of the earth, over which it would necessarily tend to travel, in the main in a westward direction, modified variously by the lower currents of the atmosphere. Such an assumption may serve to explain many of the singular facts noted in connection with the occurrence of pandemics; but it involves also the absolute abandonment of any hope that science will ever find means to prevent the disease. When sanitation has banished all specific fevers, the human race will still be prone to infection (if that term is permissible in this relation), on the large scale from sources beyond the limits of terrestrial activity. *London Lancet*.

**MEDICINE AND PHYSICIANS IN RUSSIA.**—M. Perfilieff, well known in Russia by his studies in public and social hygiene, and by his publications upon the desiderata of medical teaching and sanitary organization in Russia, speaks this time of medicine and physicians. He observes that the natural sciences are too sparingly and badly taught in Russian gymnasiums, and that during their stay at the Faculty the medical students are content with studying the theory of medicine without acquiring enough practical knowledge. The author complains that young physicians confine themselves to specialties as soon as they obtain their diplomas, so that there are no (or but very few) physicians qualified in natural philosophy.

The country has no need for female physicians; but these may usefully practice medicine within restricted limits, well defined, or among the Mohammedan tribes in the empire.



whose religion and customs are opposed to the practice of the medical art by men.

The sanitary organization of the empire and the sanitary conditions of life with most of the inhabitants leave much to desire. Mortality is much higher in Russia than in other countries. Of 1,400,000 male children born in 1855, within twenty-one years (in 1876—time of the conscription) 610,000, or 43 per 100 only, were found living. Among 1,512,202 boys born in 1862, in 1882 (time of the conscription) 777,769, or 51 per 100, were found living. Among 382,109 called in 1884, 71,607 men, or 19 per 100, were found, after medical examination, incapable for military service. The military incapacity is in most cases determined (in 32.9 per 100 cases) by affection of the bones, articulations, and muscles.

These sad percentages need no commentaries, and show that if France is threatened with depopulation on account of its feeble natality, Russia, whose natality is considerable, is threatened especially by the physical degeneration of its inhabitants, a degeneration which was ascertained repeatedly on all sides through the latest statistical inquiries of Russian hygienists.—*Cin. Medical News.*

**A CASE OF ANNUAL SHEDDING OF THE SKIN.**—A unique case is reported by Drs. J. Frank and W. C. Sanford. For thirty-three consecutive years the patient has completely shed his entire cuticle and the nails of his hands and feet on the same day of the year, July 24th, and within a few hours of the same time of the day. On July 23, 1890, he was admitted to St. Elizabeth's Hospital, Chicago, for observation, being at the time in perfect health. The patient's history is briefly as follows:

A miner by occupation, has been exposed to all the hardships of camp life, but has borne them with ease, being well formed and apparently in perfect health. Skin perfectly normal. Has never had any of the eruptive fevers, and has never required the attendance of a physician. He was born in 1857. On the 24th of July following his birth he was suddenly taken ill, vomited, became hot and feverish, and in a few hours the entire surface of the body was scarlet-red. Symptoms increased for

three or four hours, when they gradually subsided and the patient was supposed to have recovered; but on the fourth or fifth day following the attack the entire cuticle was cast off, and a few days later the nails of his hands and feet were also shed.

The patient first remembers the shedding in 1865, when the cuticle and nails were cast off while at play. These attacks have been repeated each year on the 24th of July, usually at 3 P. M., and never later than 9 P. M. The paroxysm begins abruptly. Patient has a feeling of lassitude and weakness of fifteen to twenty minutes duration, followed by muscular tremors, nausea and vomiting, a rapid rise of temperature, skin and mucous membrane of tongue and mouth become red and inflamed, and are hot and dry. No perspiration appears after the paroxysm begins until the cuticle is cast off. The acute symptoms begin to subside in from three to four hours, and are entirely gone by the end of twelve hours, with the exception of the redness of the skin, which does not return to its normal color for thirty-six hours more. The patient has been delirious three times during these attacks, once for nine days. In his early life the cuticle began to be shed on the second or third day after the symptoms appeared, and was complete by the fifth day, but each succeeding year it takes a little longer, until now it is ten or twelve days before shedding is complete. The cuticle can be detached in large sheets, and he has always been able to remove it from the hands and feet in one piece in the form of gloves and moccasins. The nails are loosened and crowded off in about four weeks after the acute stage,

On the 24th of July, the day following his admission into the hospital, the above symptoms occurred with marked similarity. Careful records of the pulse and temperature were taken. Between 3 and 4 o'clock marked constitutional disturbance began, lasting some hours and subsiding. The skin became red, the redness gradually subsiding during the next two days. On the 26th the epidermis of the mucous membrane of the tongue and mouth came off. From July 30th to August 11th the cuticle came off from different parts of the body in

large masses, from the hands as gloves and from the feet as moccasins. The latter were worn as slippers some days after being shed, to protect the feet. The nails came off later.

**AMERICAN PUBLIC HEALTH ASSOCIATION.**—The nineteenth annual meeting of the American Public Health Association will be held at Kansas City, Missouri, October 20, 21, 22, and 23, 1891.

The Executive Committee have selected the following topics for consideration at said meeting:

1. Sanitary Construction in House Architecture. (a) Heating; (b) lighting; (c) drainage; (d) ventilation.

2. Railroad Sanitation.

3. Meat Supplies.

4. Milk Supplies of Cities.

5. Arsenical Papers and Fabrics.

6. Isolation Hospital for Infectious Diseases in Cities.

7. Papers upon any of the subjects upon which special committees have been appointed.

8. Papers on miscellaneous, sanitary, and hygienic subjects.

All papers will be received by the Executive Committee subject to the requirements of the by-laws. Preference will be given, however, to papers upon the subjects selected by the committee in making up the daily programme of the meeting.

All persons who propose to present papers at the next meeting of the Association will be governed by the following by-laws of the Executive Committee:

"4. All papers presented to the Association must be either printed, type-written, or in plain handwriting, and be in the hands of the secretary at least twenty days prior to the annual meeting to insure their critical examination as to their fulfilling the requirements of the Association.

"5. If any paper is too late for critical examination, said paper may be so far passed upon by the Executive Committee as to allow its reading, but such paper shall be subject to publication or non-publication as the Executive Committee deem expedient.

"6. All papers accepted by the Association,

whether read in full, by abstract, by title, or filed, shall be delivered to the Secretary as soon as thus disposed of, as the exclusive property of the Association. Any paper presented to this Association and accepted by it shall be refused publication in the Transactions of the Association if it be published in whole or in part by permission or assent of its author in any manner prior to the publication of the volume of Transactions, unless written consent is obtained from the Publication Committee.

"7. Day papers shall be limited to twenty minutes, and evening papers to thirty minutes, each."

Invitations extended to individuals to prepare papers for the Association do not imply their acceptance by the committee, merit alone determining that question.

All communications relating to local matters should be addressed to E. R. Lewis, M. D., Chairman Local Committee of Arrangements, Kansas City, Mo.

Another circular will be issued before the meeting, giving transportation and hotel rates.

Blank applications for membership can be obtained by addressing the Secretary or Chairman of the Local Committee of Arrangements.

*Officers:* President, Frederick Montizambert, M. D., Edin., F. R. C. S., D. C. L., Medical Superintendent Canadian Quarantine Service, Quebec; First Vice-President, Dr. Thomas F. Wood, Wilmington, N. C.; Second Vice-President, Dr. Henry B. Horlbeck, Charleston, S. C.; Secretary, Dr. Irving A. Watson, Concord, N. H.; Treasurer, Dr. J. Berrien Lindsley, Nashville, Tenn.

**INTERNATIONAL CONGRESS OF THE RED CROSS.**—The Red Cross Associations organized in the European States which have signed the Geneva Convention have had the custom of holding international meetings, at which the interests of the sick and wounded in war are practically considered, and the arrangements for a more effective and harmonious furtherance of those interests discussed and agreed upon. The first of these congresses was held in Paris in 1867, the second in Berlin in 1869, the third at Geneva in 1884, and the fourth at Carlsruhe in 1887. At this latter it



was resolved that in future the congress should meet every five years, the place of meeting of the succeeding congress being then undecided. The International Committee of Geneva has just proposed that the congress should hold its fifth meeting in Italy next year, and the Central Italian Committee, duly notified of the fact, has completed negotiations with the Government according to which the congress will meet in Rome in April or May, 1892.

**CHLORIDE-OF-ZINC INJECTIONS IN TUBERCULOSIS.**—The treatment of tubercular diseases brought under the notice of the Paris Academy by M. Lannelongue, an abstract of which we published last week, is essentially based on the simple fact that fibrous induration is to be regarded as the natural curative process of tubercular change. It having been found that chloride of zinc is peculiarly apt to excite such sclerotic processes when administered in sufficiently small quantity (two or three drops of a ten-per-cent solution) so as to obviate its more powerful escharotic action, this substance has been employed, and has yielded very satisfactory results in external tuberculosis, and its application in the case of pulmonary tubercle is, according to M. Lannelongue, equally encouraging. As an illustration of the changes effected by injections of this salt into tubercular tissues may be cited the case of a child suffering from caseous glands, many of which had become fused into one mass. These were treated by the injections, and after a few days, suppuration commencing, the glands were extirpated. Opportunity was thus afforded for comparing histologically those glands which had been injected and those which had been left alone. In each case there was caseous material surrounded by a zone of tubercular tissue within a fibrous sheath; but in the former glands the whole substance was dense and fibrous and very firmly adherent to the investing layer. It would appear that the tubercular formation itself is less influenced by the agent (which has no specific property, and is therefore not in the least comparable to Prof. Koch's tuberculin) than are the healthy tissues that surround the tubercles. The aim of Mr. Lannelongue's method is, then, to induce the

formation of a densely fibrous investment to active tubercle, and by this process of encapsulation to limit the diseased product, and as it were to imprison the bacilli.

That chloride of zinc does possess the property claimed for it is sufficiently proved by the experimental study conducted by M. Lannelongue, in conjunction with M. Achard; but the adoption of his treatment will depend on the confirmation of his results at the hands of others. We confess that, while recognizing its possible utility in tubercular joint disease and glandular affection—in some cases as a curative agent, in others as a useful adjunct to further surgical proceedings—we must speak with the greatest reserve upon its application to internal tuberculosis, and especially to cases of pulmonary phthisis. M. Lannelongue gives notes of two cases of commencing pulmonary tuberculosis, both in children, in which a single injection of two drops of a one-in-forty solution was made into the apex of the affected lung (through the second intercostal space). In each case râles previously present disappeared after the injection, and in one case the temperature remained normal, in the other it rose slightly on the fourth and fifth days, but these cases are by no means conclusive, and it is impossible to base any definite opinion upon them. Indeed, upon the whole subject of the curative effect of the method M. Lannelongue speaks with commendable reserve; and though M. Le Fort claims a priority in the treatment of articular tubercle on the same lines—having in 1879 employed injection of sulphate of zinc for this purpose, with results which at first were encouraging, though later there was recurrence of the disease—there are differences in the methods employed in the two instances; and it may well be that the new procedure may be found to be of more considerable utility. It has one great merit, that of simplicity, and it deals with a substance the composition of which is no mystery.—*London Lancet*.

**THE PHYSIOLOGICAL PROPERTIES OF MALE FERN.**—The physiological properties of the ethereal extract of male fern have recently been investigated by MM. Prevost and Binet, of the University of Geneva, who find that

grave results seldom follow even large doses introduced into the stomach of man and warm-blooded animals, in consequence of the slowness with which the drug is absorbed, but that hypodermic and still more intra-peritoneal injections kill animals by paralyzing the heart and respiration. The most prominent symptoms are paralysis and early rigidity of the voluntary and involuntary muscles, preceded by vomiting, dyspnea, shivering, and cold. The chief cause of death is paralysis of the heart, which is found immediately afterward firmly contracted in systole and incapable of responding to stimuli. The vagus does not lose its inhibitory power until just before death. A great loss of vermiform movements is observed in the intestine in the case of the rabbit, the rat, the guinea-pig, and the pigeon. When the drug is applied to the conjunctiva the sensibility of the cornea is diminished, and subsequently arrested without any change being observed in the pupil. In cold-blooded animals the central nervous system is quickly paralyzed. There would seem to be a special action on the protoplasm which causes the muscular and other changes observed.—*Ibid.*

CHRONIC URTICARIA IN THE ADULT.—Dr. Wallace Beatty, of Dublin, publishes the notes of an interesting case of chronic urticaria, associated with an eruption consisting of extremely itchy papules, two to six millimeters in diameter, followed by ringed pigmentation. The patient was an unmarried lady of twenty-three, and her urticarial trouble dated from February, 1890, since which date she has had a daily eruption. In April, 1890, another eruption appeared. At first small raised red spots came; they remained as red spots for a few days, then they began to flatten down and become brown; the brown spots persisted and were very irritable. The patient was positive the spots did not begin as hives. As accompanying symptoms, there were frontal headache, gastric disturbance, and constipation. A most varied internal and external treatment was had recourse to, Dr. Beatty obtaining the most decided benefit from a combination of salicylate and sulphate of sodium.—*The British Journal of Dermatology.*

THE PROPHYLAXIS OF DIPHTHERIA.—One of the results of recent bacteriological researches is the tenacity of life which the Klebs-Löffler bacillus presents. Roux and Yersin have kept for six months a culture in broth in a tube tightly sealed; this, when sown anew, gave strong colonies and proved to be very virulent in the guinea-pig and hare. Clinical experience has confirmed the experience of the laboratory.

In diphtheria the substratum of the contagion is solid; the virus resides in the false membrane. If the liquids of the mouth are vehicles of the poison, it is through the fragments of false membrane which they contain. This contagion, deposited on cradles, furniture, the walls of the room, tapestry, has been known to be active after months and even years. Cadet de Gassicourt gives instances where the disease was contracted in a virulent form by sojourn in a room where months before a child had died of diphtheria. Darolles gives a "history of a cradle," which is instructive in this respect. In the course of an epidemic in the country an infant died in a wicker-cradle of diphtheria. Darolles urged the parents to destroy the cradle, but they refused. Eighteen months afterward another infant contracted diphtheria in the same place, at a time when the disease was unknown in the village, and died. Two years afterward a third infant contracted diphtheria in the same cradle and got well. The parents consented to destroy the cradle, and there were no more cases of diphtheria in that family.

Sevestre, in his "Etudes de Clinique Infantile," gives examples of the same sort. The contagion is exceedingly prone to cling to clothing, and the disease has in many instances been traced to this source. In one case, a scarf worn around the neck of a child that had died of diphtheria seems to have been the means of communicating the infection to a sister of the deceased.

Fortunately, the contagion is of a heavy nature, and is but little diffusible; the disease may attack a family and spare the neighboring families, and thorough disinfection seems markedly to limit its spread.

There is some evidence that the disease has



been communicated by fowls sick with a kindred affection, and that it has been conveyed in milk sold from dairies attached to houses where there are cases of diphtheria.

In the prophylaxis of this disease the first requisite is thorough isolation of the patient. The same isolation should, as far as possible, be made to extend to other members of the family. Physicians attending the sick child should scrupulously disinfect their persons and their clothing. All clothing that has been worn by the patient should be subjected to prolonged boiling, or to a dry heat of  $240^{\circ}$  F. before being again used. Thorough antiseptics of the sick-room should be practiced by sublimate washings and by burning sulphur. Children that have become convalescent should be disinfected by baths of weak sublimate water.

There should be suppression of suspected milk, and an inquiry into all other possible sources of contagion, with a view to removing them.

Maurice Nicolle makes a good hint in reference to physicians attending diphtheritic patients; they should put on a blouse before entering the sick-room, and remove it on leaving.

Dr. William H. Welch commends the prophylactic value, in persons liable to exposure to diphtheria, of cleanliness of the teeth and mouth, and of the frequent use of weak antiseptic mouth-washes, nasal douches, and gargles. Loeffler recommends for this purpose aromatic waters, weak sublimate solutions (1 to 10,000), chlorine water (1 to 1,000), and thymol (1 to 500 parts of twenty-per-cent alcohol).—*Therapeutic Gazette*.

**SALICYL-SULPHONIC ACID A NEW ALBUMEN TEST.**—Salicyl-Sulphonic acid ( $C_6H_3.OH.SO H_3O.COOH$ ), or sulpho-salicylic acid has been found by J. A. MacWilliam (Brit. Med. Jour.) a very delicate reagent for albumen and all other proteids in solution. Following is the method employed: Take a small amount of urine (for example, 20 minims), preferably in a very small test-tube, and add a drop or two of a saturated watery solution of the reagent. If the urine is strongly alkaline, an extra drop or two of the acid should be added, and if no opalescence

or precipitate occurs it is well to test the reaction with litmus-paper and make sure that the urine has been rendered strongly acid. On adding the reagent, shake the tube quickly so as to mix its contents. Then examine at once. The occurrence of an opalescence or cloudiness immediately or within a very few seconds (for example, two to three seconds) is a test for proteids intermediate in delicacy between the cold nitric acid test on the one hand and the acetic acid and heat test (under favorable circumstances) on the other. The development of an opalescence some time after (for example, one half to two minutes) is a more delicate test than even acetic acid and heat, and shows the presence of minute traces of proteid, which are probably insignificant from a clinical point of view as a rule. Next heat the tube to the boiling-point. If the precipitate or opalescence is caused by the ordinary "albumen" (albumen and globulin) commonly present in albuminous urine it does not disappear on heating, but, on the other hand, becomes markedly flocculent. But if the precipitate or opalescence is due to the presence of albumoses or peptones, it clears up on heating (before the boiling-point is reached) and reappears when the tube cools.—*Western Druggist*.

**LIFE INSURANCE AND SYPHILITIC "RISKS."**—Mr. Jonathan Hutchinson has published a paper in the London Practitioner on the "Modern Treatment of Syphilis," in the course of which he considers some of the more important relations of syphilis and life insurance. He states that he had recently been requested by a life insurance company to formulate a code of rules for the guidance of its examiners when considering the acceptance or rejection of applicants for insurance who have had syphilis. His advice on this subject was for the most part favorable to the applicants; with this exception, however, that he would decline those persons who at the time of their presentation, shall be undergoing the active development of secondary symptoms. These applicants, he advises, should be told to wait until these symptoms had disappeared. He based this counsel on the fact that it is always desirable to know how well or how ill the syphilitic patient sus-

tains the specific treatment proper to the second stage of the disease, and also how willing and attentive he may be to follow out the directions of his physician. Mr. Hutchinson holds that an insurance company might make a profitable business out of syphilitic risks accepted in the early stage of the disease and taken at the ordinary rates, for he has found that the threatened life is often a long one. In his experience such syphilitic persons appear quite as likely to attain to length of days as others who have not been syphilitic. In the cases of those who present themselves free from symptoms, but who have the history of a former attack, the advice is that they be not refused, provided they have not definitely become the subjects of the tertiary lesions of the disease, or have not, owing to idiosyncrasy or inadequate treatment, had a prolonged siege of secondary symptoms. But even among these there are not a few who would be regarded by Mr. Hutchinson as eligible risks at ordinary rates.—*Journal American Medical Association.*

**CHLORAL HYDRATE IN ACUTE TRAUMATIC TETANUS.**—Mr. Maylard reports the following case: A boy, aged fourteen, seven days after running a rusty nail in his foot, commenced to feel severe pain in the calf. Three days later his mother noticed stiffness about his jaws, and that he spoke through his teeth; two days later he was admitted into the Infirmary. He then presented the risus sardonicus, and every few minutes there was an opisthotonic spasm. He was able to swallow. He was placed upon large doses of chloral hydrate, with the object, if possible, of reducing the severity of the spasms, and of securing some rest between them. Both these objects were attained. The drug was pushed to an almost dangerous extent; he developed a chloral rash, and had epileptiform attacks, which may have been due to the same cause; but he recovered from his tetanus. Within the first three days he had 215 spasms, the largest number in one day being 82. When the chloral was first administered, he took in the course of twenty-four hours  $4\frac{1}{2}$  ounces of the syrup or  $\frac{3}{4}$  ounce of chloral hydrate. In the course of three days he took  $1\frac{3}{4}$  ounces of chloral; and the total amount administered

during his illness was 5 ounces, 5 drams, and 29 grains. During convalescence a small abscess formed at the site of the original wound, and two small splinters of wood were removed from it.—*Brit. Med. Journal.*

**A NEW METHOD OF NASAL IRRIGATION.**—Dr. James B. Ball brings under the notice of the profession a very simple apparatus for applying any kind of lotion to the nose and nasopharynx. The instrument which he describes is based upon a suggestion which originated with Dr. Pins, of Vienna, and has several advantages over the commonly used and often abused nasal douche on the syphon principle. The apparatus consists of a bottle similar to that known to chemists as a "wash-bottle." It has a long tube and a short tube, both passing through the tightly-fitting cork, and the former passes deeply down into the fluid contained in the bottle, while the latter merely passes through the cork. The short tube is so fitted that the patient can hold it between his lips while the end of the long tube is introduced into the orifice of one nostril. If he now blows down the mouth tube, the lotion rises up the opposite tube and flows into the nostril, round the naso-pharynx, and out by the opposite nostril into a suitably placed receptacle. Ball speaks highly both of the convenience to the patient and the efficiency of the method of application.—*Lancet.*

**FAVUS.**—Mr. Jonathan Hutchison records a very severe example of favus, with peculiarities, occurring in a boy of fourteen, who presented the following condition. The whole of the scalp hair had been destroyed, and the scalp reduced to the condition of scar. The face, part of the scalp, and the fingers were covered with thick horn-like crusts. The nails were thickened and broken up, and on many parts of the body and limbs were crusts and conspicuous scars. The case was peculiar inasmuch as in no place was a yellow and characteristic cup crust in the least resembling favus to be found. Nor was there any approach to the peculiar odor of that malady, but the fungus of favus had been found, both in the crusts and in scrapings from the nails. The boy's lips



were excoriated; his circulation was feeble, and his hands and feet were dusky. While he was in the hospital ward two other cases of favus had arisen. The general opinion of the members of the Dermatological Society of London, who had seen the case, was that none of the naked-eye appearances suggested favus.—*Brit. Med. Journal*.

**THE MEDICAL PROFESSION IN RUSSIA.**—The total number of qualified practitioners in Russia, says a foreign exchange, last year was 12,521, and of these 409 were women. Thus there are about 8.4 doctors to each 100,000 inhabitants. The distribution, however, of medical men is unequal, as may be seen by the fact that in Siberia there are only 3.8 practitioners to every 100,000 inhabitants. Twenty-one per cent of the total number of the profession is engaged in the military and naval services. The average age at which a student becomes qualified is 25.9 years, the women students taking twelve months longer than this. In Odessa the average income is said to be about \$3,000 a year; in St. Petersburg, \$1,850; in Warsaw, \$1,250; in Moscow, \$1,400; and with regard to the public services, only two per cent of the medical men are paid more than at the rate of \$2,500 per annum, while the salaries for the most part vary between \$750 and \$1,250.

**MEDICAL TEMPERANCE ON THE CONTINENT.** In the struggle to check inebriety, which has of late so occupied the most cultured intellects on the Continent of Europe, very little has been done in the advocacy of abstinence. The prevailing idea, even among Continental members of the medical profession, has been that the increase of insanity and of other evils from drinking has arisen from the heavier alcohols, and that pure unsophisticated spirits, wines, and beers are really temperance beverages. A new departure has, however, been taken by a few of our Continental *confrères*. Prof. Forel, of Zurich, Prof. Bunge, of Basle, and Dr. Wilhelm Bode, of Dresden, have established strictly abstinence societies in those cities, and these associations are now vigorously at work.—*British Medical Journal*.

**REPORT ON HYPNOTISM.**—The Committee of the British Medical Association, appointed to investigate the subject of hypnotism, state that they regret that the time at their disposal has been too limited to allow of their completing their researches into a subject of such width and complexity. They are, therefore, as yet unable to express any definite conclusions to the council. So far as their investigations have gone they seem to prove that the phenomena of hypnotism are such as to favor the belief that it may prove of service as a therapeutic agent when employed legitimately by properly qualified scientific persons.

They have no doubt, and they desire to give emphatic expression to this conviction, that the use of hypnotism by persons who are not so qualified, or without due precautionary restrictions, is greatly to be deprecated, and might properly be limited by legal enactment.

The Committee suggest their reappointment. *British Medical Journal*.

**CASE OF LIVING LARVÆ IN THE EAR.**—When flies deposit their eggs in the auditory meatus, it is almost invariably found that the fly has been attracted to the ear by the existence of a bad-smelling discharge; and further, it is found that the resulting larvæ are difficult to remove, as they adhere very tenaciously. A case is recorded in the Archives of Otolary, Vol. xx, No. 1, by W. Baxter, of Bangor, Maine, which differs in both these points. The patient, an American farmer, felt a fly enter his ear while he was mowing. He removed the fly, dead, with a stalk of grass, and probably pressed out some of the eggs in doing so. Four days later the ear was examined, and found to be full of active larvæ, which were easily removed by gentle syringing. The membrane was abraded but not perforated, and soon appeared perfectly normal again.

**DR. H. K. PUSEY**, the well-known alienist, has been appointed by Governor Brown Superintendent of the Central Kentucky Lunatic Asylum. The return of this gentleman to his former field of work will be commended by every physician in the State not himself an applicant for the place.

HEADACHES OF CHILDREN.—The headaches of school-children, says Dr. W. S. Higgins in the Peoria Medical Monthly, are caused, not by over-study, but strain on the eyes caused by the white book paper used. Smoked eye-glasses will prevent the trouble, but children naturally dislike to wear glasses, and he now earnestly advises printing school books on yellow paper in blue ink, experiments having proven this the very best combination. For similar reasons white letters on black ground have also been recommended.

FOREIGN UNIVERSITY INTELLIGENCE.—Berlin: Dr. M. Rubner, Professor of Hygiene in the University of Marburg, has been offered the Directorship of the Hygienic Institute, vacated by Professor Koch.

Giessen: Dr. Ferdinand Fuhr has been promoted to an Extraordinary Professorship of Surgery.

Jena: Dr. F. Skutsch has been promoted to an Extraordinary Professorship of Gynecology.

Prague (Bohemian University): Professor Maydl, of Vienna, has been selected for the chair of Surgery, vacant by the death of Professor Weiss.

SO WAST IT DONE BEFORE WE WERE BORN. The following is a literal copy of a doctor's bill rendered fifty-eight years ago. The MS. is the property of our valued friend, Dr. O. D. Todd, of Eminence, Ky.:

Mr. Wooldridge, Dr.	
To Joseph McCutchen, M. D.	
Nov. 5. One Visit .....	\$1 00
" " Wash for throat 18 $\frac{1}{2}$ , Pills 25.....	43 $\frac{1}{2}$
" 8. A Visit \$1.00, six Powders 37 $\frac{1}{2}$ .....	1 37 $\frac{1}{2}$
" 12. A Visit \$1.00, two Powders 12 $\frac{1}{2}$ .....	1 12 $\frac{1}{2}$
" 13. A Visit \$1.00, Febrile Drops 12 $\frac{1}{2}$ .....	1 12 $\frac{1}{2}$
" 15. A Visit \$1.00, three Powders 18 $\frac{3}{4}$ .....	1 18 $\frac{3}{4}$
" 17. A Visit \$1.00, Febrile Drops 12 $\frac{1}{2}$ .....	1 12 $\frac{1}{2}$
" 19. A Visit \$1.00, one Powder 6 $\frac{1}{2}$ .....	1 06 $\frac{1}{2}$
" 20. A Visit \$1.00, three Powders 18 $\frac{3}{4}$ , Drops 21 $\frac{1}{2}$ .....	1 31
Settled,	\$9 85
Nov. 29, 1833.	J. McCUTCHEN.

A BARBAROUS EXPERIMENT.—It is stated by a Dalziel telegram, dated the 15th instant, that Prof. Bergmann and Dr. Hahn have been ordered to answer within twenty-four hours the charges of having inoculated pauper patients with cancerous matter.

LEIDY CHAIR OF ANATOMY AND MUSEUM.—It has been decided to raise a fund for the endowment of a Chair of Anatomy at the University of Pennsylvania, to be known as the Leidy Professorship, in memory of Joseph Leidy, who held the professorship of anatomy for thirty-nine years. It has also been decided to raise a fund of \$50,000 to establish a museum, to be known as the Leidy Memorial Museum.

SANTONOLACTONE has been recommended as a substitute name for santonin, in order to avoid its being confounded with strychnine.—*Rep.*

SPECIAL NOTICES.

Messrs. Reed & Carnrick, New York.  
Gentlemen: Two years ago I took diarrhea and was treated for it by a number of physicians with only temporary relief. I received some of your Pancreobilin, and I am happy to inform you that one bottle was sufficient to do the work in my case. It entirely cured me, and I have not had a return of the trouble since. My weight was reduced from 175 to 140, have now regained my former health and weight. You are at liberty to publish the above over my signature.  
Yours truly,  
R. R. ANDERSON, M. D.

BEDFORD, O., June 3, 1891.

FOR RENAL HEMORRHAGE.—The following is extremely useful:

R. Ext. Ergoth 1..... 2 oz.  
Kennedy's Pinus Canadensis (dark).. 2 oz.  
M. Sig. One dram every hour or two.

The Rio Chemical Company, of St. Louis, if it had never done more than to present to the profession its valuable EXTRACT OF PINUS CANADENSIS, would have placed the profession under a lasting obligation to it. There is no more healthful, stimulating, and generally beneficial application that can be made to a diseased mucous membrane than this.

DR. N. M. GRAY, of Allegheny, Pa., says: I have tried PAPINE in two cases, and with the best effects. Both were cases of children, from one to three years old, and both so complicated with cerebral trouble that I feared to use opium or any of its preparations, and yet I wished for an anodyne to control some very marked symptoms. So I tried the PAPINE, and am happy to say that it had the desired effect, without any of the unpleasant consequences so often following the use of the drug in any form I have heretofore used. I think it an excellent preparation for that class of diseases, and intend to use it hereafter.

THE Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. "Robinson's Phosphoric Elixir" is an elegant solution of these chemicals. (See advertisement in this issue.)



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

LOUISVILLE, KY., SEPTEMBER 26, 1891.

No. 7.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### REPORT ON PRACTICAL MEDICINE.\*

BY J. F. PURDOM, M. D.

As regards practical medicine, the medical mind has been principally absorbed during the past twelve months by one great line of thought which is far-reaching and covers almost the entire domain of medicine, that is, the application of remedies based upon the microbe theory. The investigation has been chiefly in reference to tuberculosis, diphtheria, typhoid fever, and the application of antiseptics in a general sense. There has been much achieved in settling satisfactorily the great question of antiseptics as related to practical medicine.

It must now be admitted that no man can afford to lay claim to the title, "Doctor of Medicine," and at the same time wholly discard or deny the principles of asepsis and antisepsis. We are forced to the conclusion, that though the failures in the effort to practice antiseptic medicine be many, the fault is not in the principles, but in a want of proper and thorough application of the same.

When we pass from the great and acknowledged principles of antisepsis, as now successfully used when properly applied in relation to all wound treatment, including obstetrics (abortion) and all gynecological work, we can but call a halt, and speak cautiously as to the claims we make in our advance in point of fact, for while much has been done in pros-

pect, established facts upon which we can afford to rely in practice, realized through recent channels of investigation, do not relate to established therapeutic agents.

Perhaps never in the history of the medical world has the profession been so completely stirred from center to circumference as by the tuberculine of Prof. Koch; and all we have gained by it is to stimulate active workers in a correct line of investigation, for it seems clear to my mind that when the evidence as given in medical literature for and against Koch's lymph is carefully weighed the balance is against it as a therapeutic agent; neither has it been proven reliable as a diagnostic agent, and will soon be only a thing of the past as a remedy.

As regards the treatment of tuberculosis, we are where we were when Koch discovered the tubercle bacillus, still without a specific. Yet we should not despise the work done by Prof. Koch, for it has inspired men with new courage in the field of investigation that can not fail to result in great good to suffering humanity.

Cantharidin, hypodermically, as a remedy for tuberculosis will hardly secure to the originator the notoriety enjoyed by Dr. Koch, although the reports made are of a high-sounding character.

I am inclined to the opinion that any substance introduced under the skin, that would cause a septic or irritative fever, would produce similar results to those of the above-mentioned agents.

In my judgment the principle is wrong, for it is a fact well established that fever, from any cause whatever, produces a reduction of the vital forces in proportion to the degree of fever and the length of time the elevated temperature continues; and reduced vitality is the essential element in the production of a situa-

\*Read before the Central Kentucky Medical Association, at Harrodsburg, July 15, 1891.

ble soil for the development and growth of the tubercle bacillus when present.

He who imagines a treatment for the cure of pulmonary tuberculosis, without adding to well-regulated hygiene and diet some form of medicinal agent that will promote reconstructive metamorphosis, that will invigorate his patient's nutritive functions rather than depress his vitality by a septic fever, is simply indulging in an idle dream.

When Dr. Coomes, of Louisville, applied a solution of methyl-violet to lupus, it was indeed a practical application of the microbial theory of lupus, in that, if methyl-violet would stain the tubercle bacillus it would also destroy it; and his results in the two cases reported were satisfactory. But how different might his results have been, if the remedy had been injected between the scapulæ. Upon the same principle Dr. Boggess, of Louisville, used methyl-blue as a local and internal remedy in diphtheria with success.

Careful research by a number of reliable investigators convinces me that diphtheria is the result of a specific bacillus, and that the systemic infection is not a result of the bacillus penetrating the general system, but that the micro-organism remains superficial and there furnishes a product in the form of a ptomaine which is absorbed, producing a septic fever. Such being the case, a line of treatment is clearly indicated. First, if possible, destroy or render inactive the bacillus in the field of action, and counteract the depressing effect of the ptomaine in the general system by supportive and eliminative treatment; or, what would be still more desirable, seek to find a remedy that when introduced into the system would neutralize the poisonous properties of the ptomaine.

The etiology of typhoid fever consists in the introduction of the typhoid bacillus into the intestinal canal, and the micro-organism must pass the stomach and enter the small intestine in an active state or there will be no typhoid fever.

The pathology consists in the bacilli being taken up by the glands of the small intestine, where they find a suitable soil for their reproduction and growth. And here, like the diphtheritic bacilli, they remain without being car-

ried into the general system, but continue their development, the result of which is the production of a ptomaine which is absorbed into the general system, poisoning every tissue of the body, resulting in a septic fever peculiar to the producing cause, the degree of fever and systemic disturbance being in proportion to the amount of ptomaine absorbed and the resisting power of the vital forces of the patient. Relapses and exacerbations result from extension of the bacilli to other glands, or from dietetic or other disturbance of the intestinal tract, causing a renewal of the activity of the bacilli in the glands already infected.

The question often asked by the laity, Why do not all people who drink from the infected water supply have typhoid fever, finds here a reasonable solution, because the bacillus must pass through the stomach and enter the small intestine in an active state, and the majority of individuals secrete a gastric juice sufficient in quality and quantity to destroy the virulence of the bacillus.

The above-mentioned etiological and pathological conditions are suggestive of a treatment of typhoid fever based upon a rational line of thought.

In the first place an antiseptic condition of the intestinal tract is indicated, and to accomplish this we must remember that we have to pass the stomach to reach the enemy. Then, first, what is the antiseptic that will sterilize the intestinal tract or destroy the typhoid bacillus, and at the same time be harmless to the patient? And, in the second place, can we pass the stomach with the remedy without its antiseptic properties being neutralized by the action of that organ?

Then will arise the question of quantity and frequency of dose. For if the bacilli are not absorbed into the general system, they are evolved from the glands and eliminated by the intestinal tract. And here we see in nature an effort to rid herself of the noxious enemy by the diarrhea seen in the vast majority of typhoid cases. If we succeed in introducing into the intestinal tract an effective antiseptic safely beyond the stomach in such quantity as to sterilize the lumen of the bowel and its con-



tents, we have not yet finished our work, for we are aware that all the bacilli are not on the surface of the glands and intestinal mucous membrane, but many have penetrated the gland substance beyond the reach of the antiseptic, which may only effect those near the surface. Consequently those deeper seated continue to multiply and produce the ptomaines as they are thrown out into the intestinal canal. We must now find a remedy that will counteract the virulence of the poisonous ptomaine that has been and is still being absorbed into the system, and that remedy must be sufficiently harmless to the patient to enable us to saturate the system to such a degree as will neutralize the effect of the ptomaine on the tissues. When we have accomplished these results we have not aborted typhoid fever, but rendered its course mild and harmless.

As regards the treatment of enteric fever as now practiced, I can only say the tendency of the profession is to use less medication and rely most upon some form of antiseptic, salol and listerine holding first place in the hands of the writer, and otherwise meeting indications as they arise. With the use of salol and listerine in a few cases of typhoid fever I have observed the tympanites nil, the diarrhea was more easily controlled, the fever mild, the tongue less dry, and delirium scarcely noticeable, while the cases were not so protracted.

Salol is given with a view to the fact that, being an acid compound, it will pass through the stomach as salol and be broken up in the alkaline solution of the intestinal tract, and there spend its force as an antiseptic, not only on the contents of the bowel but by being absorbed after reaching the intestinal tract. Its properties may also affect the deeper-seated bacilli in the glands.

The treatment is yet very unsatisfactory, but there is much promise in the line of investigation here indicated.

To stimulate original thought and more careful investigation, with a hope of reducing the high rate of mortality from typhoid fever, is the writer's only excuse for hurriedly expressing the conviction of his own mind upon these great and important questions.

LOUISVILLE.

## FOUR TYPICAL CASES OF ASCITES.\*

BY J. M. MAYER, A. M., M. D.

It may be well to remark that dropsy is not *per se* a disease. It is rather the resultant of some other diseased condition. To illustrate, the brain, the heart, the liver, the kidneys may be acutely or chronically affected and result in an effusion of serum into any investing membrane, so that we frequently call the resultant the disease.

With this clearly defined position I propose to relate four cases as typical ones occurring in persons of different ages, of dissimilar constitutions, and remotely located in time and space. In a wide and extended practice, spanning forty-eight years, with Danville, Ky., and its surroundings as the field of service, it being a literary center of classic renown, with a cultured population, associated in county, district, and State medical circles with professionals of national reputation, it is presumable that I have come in contact with almost every phase of disease, and have seen various modes of treatment instituted.

My purpose in this paper is to emphasize the cholagogue-diuretic power of English calomel in the treatment of ascites, founded upon the pathology of the liver and its co-ordinates. I am aware that I am antagonizing the experiments of the immortal Bennet, and all I have to say in rebuttal is, that a dog is not a man. Nothing is so successful as success.

With these preliminaries I now introduce to you Mrs. B., a patient of Dr. P., of Perryville, Ky., a lady of refinement, forty-three years old, the mother of seven children; she had enjoyed fair health till some six months past. A consultation case. I found her with a dingy skin, a closely furred tongue, feeble circulation; temperature slightly exalted, loss of appetite, an enormously distended abdomen, enlarged liver, and constipated bowels. The kidneys of course were secreting sparsely; water normal and highly colored.

I proposed the heroic use of the submur. hydrarg., but objection was made that various modes of procedure had been tried; and inva-

\*Read before the Central Kentucky Medical Association, July 15, 1891.

riably, when calomel had been used in large or small doses, the bowels would act too freely, and thus prostrate the patient and impair what little appetite remained.

A modified treatment was instituted for a week, but without avail.

A second consultation found our patient no better—rather worse and more prostrated. I now insisted upon heroic treatment, which was agreed to, provided I would state clearly to the patient the course proposed and its possibilities, and if agreed to, all right. I did so. She responded, "I will do any thing, for unless relieved I must die."

The doctor and I retired and formulated our plan of treatment, and left written directions as to every possible contingency, I promising to return after three days, in the mean time the doctor to see the case every day.

On my return I found the patient had followed the directions to a dot, had stood the treatment well, had had but one action from her bowels each day, and after the first twenty-four hours a decided increase of urine ensued, and continued to increase from day to day till every particle of hyper-distension had disappeared. This ran through about twelve days.

Now for the treatment. R One grain of opium pulv., five grains of English calomel; add five grains of calomel to each dose until you reach forty grains, keeping the opium the same; these powders to be numbered 1, 2, 3, etc., and to be given in their order, thus: the two first six hours apart, then two twelve hours apart; of the remainder one at bedtime each night till all are taken. In the mean time apply a heavy compress of cotton, well soaked in soft, cold water, large enough to cover the entire abdomen, this to be wrung so as not to drip and wet the patient, and over and around the body apply a wide flannel roller tightly drawn and long enough to compass the body three times; this to be renewed every two hours, the compress being well washed every time. This treatment to be continued as long as any hypersecretion existed in the abdominal cavity.

Suffice it to say that after a few repeated visits our patient was entirely relieved, her spirits buoyant; and with the use of a tonic course of treatment for a few months, the mur-

ture of iron being preferred, she regained her health perfectly and lived to enjoy life for many years, a most grateful patient. This is an oasis in the life of a busy doctor.

- A second case occurred in the person of a gentleman of seventy-three years. His occupation was farming; had enjoyed fair health most of his life; was in easy circumstances and a good liver. His health had been gradually declining for some months, when I was called to see him. I found him with a belly full of water, with great difficulty of breathing, constipated bowels, a thickly coated tongue, dry skin, lower extremities edematous and covered with red splotches; enlarged liver and locked-up secretions.

I put him on the same treatment, with some modifications to suit his age and other indications. This case responded nicely to treatment, and, after a somewhat tedious convalescence, recovered, never to have a recurrence of this trouble.

The third case is in a girl, of fifteen years, just on the approach of menstruation. The detail of symptoms in this case differs but little from the foregoing, so that an enumeration may be omitted. The treatment was the same, but not as heroic. After some delay, this case not bearing medicine well, she responded by complete riddance of the system of all watery effusions and the establishment of the catamenia.

The fourth case occurs in a child four years of age, who had been under the care of a reputable practitioner for a month without any improvement. This child was a perfect bloat, an exceedingly unpromising case. Nevertheless I introduced the same general line of treatment, modified to suit the age and the great depression arising from former treatment and the inroads of disease. To my surprise this case also responded handsomely, and in one month was well. She remained well for six months, when she had a similar attack, only with more aggravated symptoms; abdomen enormously distended, vulva in such a strait as almost to prevent the passing of urine, and the extremities edematous. This case was now largely anemic, so that I was obliged to sustain as well as deplete my patient. However, the



treatment was well borne, and while her recovery was tardy yet she made a perfect recovery; and now, after a lapse of two years, she is in perfect health, and has grown up as rapidly as any of her associates.

These four cases cover the scene of human life. They are a fair specimen of cases as they have occurred in my practice. Two of them are Anglo-American and two of African descent. I have selected these out of many others who have all been subjected to the same general treatment, with the same uniform success.

While I have often used drastic catharsis and an endless variety of diuretics, as advised by eminent authority, with some degree of success, yet for the last twenty years I have been so much more largely successful with this line of treatment that I have dared to thus publicly, through the courtesy of your aggressive State Medical Association, to promulgate them, with the hope that thereby many of the ills of suffering humanity may be relieved.

DANVILLE, KY.\*

## INFLUENZA.

BY E. S. M'KEE, M. D.

Influenza is an epidemic, or, better, a pandemic, which sweeps rapidly over the globe from east to west, being equally prevalent in all climates and among all classes of society. The disease has a score of names according to the countries through which it passes, the most common being influenza and *la grippe*. Influenza, the generally accepted term, is a name given by the Italian savants of the seventeenth century, because they thought it due to the influence of the stars. *La grippe* is said to come from the Polish *crypka*, meaning hoarse, but is most probably from the French word *gripper*, meaning to seize, from the suddenness of the attack. This is easily changed into the English word "grip," which to its victims is a very meaning term. The Germans call it *blitz catarrh*, which is also expressive.

The origin of the recent epidemic of influenza, according to Clemon,<sup>1</sup> began in Siberia

at Tomsk, October 15, 1889, but Heyfelder<sup>1</sup> asserts that it existed in Russia in the summer of 1889. In the early part of December, 1889, it appeared at Berlin, Paris, and in Austria, and in the latter part of December in London and New York. It reached Italy, Greece, and North Africa about the same time or a little later. The Vienna correspondent of the Medical Press<sup>2</sup> says it had its origin in or about Wassiti, Ostrow, and Kolomna, southwest of St. Petersburg, about the last week of October, 1889, and spread rapidly to the capital. Within three weeks from its first appearance the half of the populace of St. Petersburg were rendered prostrate by its influence. Buckingham<sup>3,4</sup> relates that an epidemic closely resembling the influenza always appears twice a year, in January and August, in the Caroline Islands, attacking nearly everybody. This might be called the home of the influenza, providing the complaint is not hay-fever. Guiteras<sup>5</sup> dates epidemics of influenza back before the Christian era, an outbreak having occurred in the Athenian army in Sicily, B. C. 415. Epidemics have occurred at irregular intervals, sweeping over Europe from east to west. No exact records have been kept up to the year 1510, when it prevailed in the British Isles to an alarming extent, and quite an accurate account of the epidemic was written. About twenty well recorded outbreaks followed, in the years from 1557 to 1879, besides many others of minor importance. It travels with greater rapidity as facilities for rapid transit improve. In about six weeks it traveled from the neighborhood of St. Petersburg to New York, which beats all former records. The extent of the disease in London may be imagined from the statement<sup>6</sup> that the loss in wages due to the influenza in that city amounted to \$5,000,000, and that a like amount was paid out in insurance and sick-dues by the different mutual aid societies. During the summer of 1890 the disease appeared in Iceland,<sup>6</sup> and spread with great rapidity. Former epidemics in this island were very fatal; about the same time it

<sup>2</sup>New York Medical Record, January 11, 1890; Medical Press, 1890.

<sup>3</sup>New York Medical Record, January 25, 1890.

<sup>4</sup>Boston Medical and Surgical Journal, 1890.

<sup>5</sup>New York Medical Record, July 19, 1890.

<sup>6</sup>New York Medical Record, September 13, 1890.

<sup>1</sup>Medical Record, April 12, 1890; Schmidt's Jahrbucher, 1890.

appeared in the Azores.<sup>7</sup> In October 1890, 100,000 cases were reported from Tokio, Japan.<sup>8</sup>

A Paris correspondent<sup>9</sup> says that upon its first appearance there the faculty made light of it, even the Academy of Medicine assuming that the visitation would be a comparatively harmless one. It proved to be worse than any of the three cholera epidemics of 1854, 1865, or 1884, in Paris. They were informed later that it was not the influenza that killed, but its sequelæ. While in Paris it was given its Anglo-Italian name of influenza, in America it was called *la grippe*. In Paris children were largely exempt, but in adults from twenty to sixty years of age the death-rate was three times the average, over sixty only twice. Nearly twice as many males as females died. Wealth conferred no exemption, only the army in actual service enjoyed remarkable immunity.

The etiology of influenza is discussed by Dowd,<sup>10</sup> who found, in a series of observations embracing about thirty cases, the diplococcus pneumoniæ of Fraenkel and Weichselbaum the predominant form. In six series, embracing thirty or more cases, streptococcus pyogenes was found in the lungs, sputum, and other secretions, and in various exudations. Each was found a great many times in pure cultures; for example, in the pus of otitis media Finkler finds pure pus growths of one, and Levy finds pure growths of the other. The general belief is that they have not been the cause of the influenza, but that they have developed as the influenza has provided them with a suitable condition for growth, and that this development may have caused some of the complications.

Bacterial studies in influenza have been diligently carried on by various observers. Prudden<sup>11</sup> found in two or three cases of simple influenza associated with bronchitis very large numbers of streptococcus pyogenes, which was the prevailing species; all the rest were scattering forms, most of them ordinary aerial bacteria. In the other cases of bronchitis

there were large numbers of the diplococcus pneumoniæ of Fraenkel and Weichselbaum, associated with a few of the streptococcus pyogenes aureus and several scattering forms. The latter were the only pathogenetic species found. It would seem, from these observations, that the relation of influenza to pneumonia is that of a predisposing factor only. The results of his investigations were rather negative. Rikert,<sup>12</sup> in Pathological Studies (bacteriological studies of five cases of influenza, three with and two without pneumonia), showed that the only species constantly present was the streptococcus pyogenes. The diplococcus pneumoniæ he did not find at all. He very guardedly suggests the possibility that the streptococcus, in association with some unknown peculiar atmospheric condition, may cause the disease. Whether this be true or not, he would lay stress upon the probable importance of the streptococcus in inducing various complications.

The contagiousness of influenza has been thoroughly discussed. Trudeau,<sup>13</sup> in charge of the Adirondack Cottage Sanitarium for Consumptives, fearing that an attack of the prevalent influenza might be disastrous to the many consumptives, quarantined the place against the disease as soon as it appeared in the neighborhood. His patients escaped, though it was very prevalent about them. To offset this, Armstrong<sup>14</sup> reports having treated over two hundred cases without taking the disease, but did have it at a much later period when he was treating no cases at all. D'Hoste,<sup>15</sup> surgeon to the Saint Germain Steamship, reports that vessel left Saint Nazaire, December 2, 1889; December 5th a passenger embarked from Madrid, where the influenza was raging. The next day the passenger was taken ill; four days later the doctor; then a servant. From December 12th to January 7th, 154 out of the 436 passengers and 47 men of the crew became afflicted with the malady. The epidemic was slight, with no deaths. Hence the conclusion that *la grippe* is manifestly a contagious and transmissible malady, and that not only in its grave compli-

<sup>7</sup> Correo Medico, Lisbon, 1890.

<sup>8</sup> New York Medical Record, October 18, 1890.

<sup>9</sup> Therapeutic Gazette, February, 1890.

<sup>10</sup> Medical Record, March 29, 1890; Analectic, April, 1890.

<sup>11</sup> New York Medical Record, February 15, 1890.

<sup>12</sup> Deutsche Medicinische Wochenschrift, January 23, 1890; New York Medical Record, February 15, 1890.

<sup>13</sup> The Sanitary Inspector, 1890; New York Medical Record, April 26, 1890.

<sup>14</sup> New York Medical Record, March 1, 1890.



cations, as established by Prof. Bouchard, but also in its simple and benign form.

The varieties of the fever itself are divided into three groups by the Vienna correspondent of the *Medical Press*:<sup>2</sup> (1) Those with pure nervous symptoms, as headache, pains in the limbs, neuralgic pains in the trunk as in pleuritis; the respiratory and pulmonary mucous membrane normal as well as alimentary canal. This form is the most common, and has on many occasions been diagnosed as typhoid. (2) The catarrhal form; bronchial catarrh, sneezing continued several days after the fever subsides. (3) Gastric catarrh of the alimentary tract, with persistent vomiting. This writer gives the temperature as rising rapidly to 104°-105° F. (40°-40.5° C.). It remains at this height about two days, and rapidly falls. The duration of this fever is usually three days, seldom five or six. Little alteration of the spleen is observed. Convalescence is variable, and seems to depend upon the intensity of the attack. Relapses are not uncommon.

Shattuck<sup>15</sup> found the most striking feature of the disease the prominence and frequency of the nervous symptoms; the predominance of these, on the whole, over catarrhal, respiratory or abdominal. He is inclined to think, however, that this is partly due to the fact that of late years our attention has been directed more to the part played by the nervous symptoms in the various diseases. Pneumonia was unusually prevalent during the height of the influenza epidemic. Statistics of large mills, where great numbers of hands are employed, show that about 40 per cent had the influenza, and that less than 50 per cent of those severely attacked by influenza acquired pneumonia. Pneumonia followed the influenza in such a large proportion of cases that some sort of a connection was proven between the two affections. Guiteras,<sup>16</sup> in a large dispensary practice, found only about 10 per cent suffering from nasal catarrh; about 2 per cent suffering from an intestinal form of the disease having the same general symptoms as the others, with the exception that the catarrhal symptoms of the stomach and bowels have been most marked

and have shown themselves in vomiting and diarrhea. Severe frontal headache seems to occur in all cases. Pains in orbits and eyeballs were only marked in about 10 per cent of the cases. Pains in bones and muscles were complained of in about 40 per cent of the cases. Pepper<sup>17</sup> thinks there is much evidence to show that the exceptionally severe pains about the chest with pains in different parts of the body in this disease might be considered partly due to general neuritis or peri-neuritis of varying degrees of intensity. It would seem that the view of the infectious origin is strongly supported by many facts. The existence of such neural trouble has been made clear in a number of cases by muscular and sensory sequelæ. Such a condition of the intercostal and respiratory nerves, and possibly of the pneumogastriacs themselves, may be invoked to explain not only the chest pains but the extraordinary weakness of the respiratory murmurs noted in so many pneumonia cases.

A valuable report is made by the Secretary of the Massachusetts State Board of Health:<sup>18</sup> Ratio of general population attacked, 40 per cent; industrial establishments employing large numbers, 35.5 per cent; inmates of public institutions, 25 per cent; ratio of persons employed and obliged to leave their work, 27 per cent.

The urology of influenza is discussed by Chappelle.<sup>19</sup> He says that, according to Hayem, all influenza patients have urobilin in excess in their urine. Hurchard finds a constant diminution of phosphates. Fernet, on the other hand, finds an increase in both urates and phosphates. Gautrelet ascertains that in the urine of these patients there is some hyperacidity and some increase of indican. Chappelle finds constantly hyperacidity and excess of phosphoric acid and richness in coloring matter. Indican he found four times in the two specimens examined. He did not find urobilin in excess, but generally below normal; nevertheless all the urine examined was rich in chromogens, sometimes called urosocine. In two cases he met with skatol. Lesions in the

<sup>17</sup> *Medical News*, July 5, 1890.

<sup>18</sup> *New York Medical Record*, December 13, 1890.

<sup>19</sup> *Lyon Medicale*, June 1, 1890; *Dublin Journal Medical Science*, 1890; *Journal American Medical Association*, August 23, 1890.

<sup>15</sup> *New York Medical Journal*, June 14, 1890.

<sup>16</sup> *New York Medical Record*, January 4, 1890.

spinal cord are described by Foa.<sup>20</sup> There were numerous hemorrhagic foci found on microscopical examination, notably in the upper two thirds of the dorsal and the upper portions of the cervical regions, chiefly situated in the posterior columns, almost always at their periphery. Degenerative foci were found, mostly in the lateral columns. He thinks these due to an occlusion of the vessels probably caused by an accumulation of micro-organisms.

Hysterical symptoms following influenza are reported by Grasse, of Montpellier.<sup>21</sup> A similar case is recorded by Trousseau. Ranzier reports a case of hysteria in the male following *la grippe*, the patient being a soldier, aged twenty-eight, of previous good health. A case of Meniere's disease, aural giddiness, provoked by influenza is recorded by Money,<sup>22</sup> who believes it a common occurrence for influenza to disturb the balancing nervous apparatus. He thinks the most probable suggestion to be an effusion into one semicircular canal, but which one he is unable to determine. It seemed a peculiarity of the nervous discharge to cause vomiting, micturition, and defecation.

Alopecia areata following influenza is reported by Williamson.<sup>23</sup> A widow and her seven children all had the influenza at the same time. The mother had severe headaches, which continued for a long time and were followed by the loss of hair, which resulted in baldness in patches over the course of the supra-orbital and occipital nerves, and the skin was very tender to the touch. Each patch exhibited the usual characteristic signs of alopecia areata.

The aural and cutaneous complications in influenza are discussed by Eitelberg,<sup>24</sup> who states that during the recent epidemic in Vienna he had seen at least a hundred cases of such complications. Although very painful, the patients spending sleepless days and nights from the agonizing pains shooting through the head and shoulders, the cases as a rule ended in complete recovery in a comparatively short

time. The average duration was from eight to ten days. Urbantschitsch<sup>25</sup> found among numerous cases one of vegetation. In two cases the mastoid process was transiently affected, and in two others the deafness remained for a certain time after the inflammation had subsided. Schwimmer<sup>26</sup> expresses the belief that the streptococcus is the cause of the erythematous and erysipelatous skin affections which are met with in influenza. Extensive erythemata were observed in St. Petersburg; in Paris, erythematous skin inflammations, and occasionally also papular eruptions; in Berlin and Vienna, erythema, herpes, and urticaria. Lowenberg<sup>27</sup> reports in Paris a considerable increase in inflammatory aural troubles, the most common form being the classical acute otitis media. None proved fatal, and all were easily amenable to treatment. Considering the easy transmission of catarrhal affections in the nose to the eustachian tubes and even the drum, no one need wonder at the spread of ear diseases.

Aphasia following influenza is reported by Poole<sup>28</sup> in the case of a young woman who had just been confined. Diffuse enlargement of the lymphatics, especially enlargement of the bronchial glands even advancing to suppuration, is reported by Todd<sup>29</sup> as occurring in cases in his city, Pottstown, Pa. Kinnicut<sup>30</sup> has found obstinate and acute neuralgias as sequelæ in many cases, most frequently implicating the trigeminal and sciatic nerves. He has seen two cases of peripheral neuritis of moderate severity, but unaccompanied by atrophic symptoms. The mental depression, so prominent a manifestation, has associated with it an occasional suicidal impulse. Two cases of herpes zoster, one of vaso motor paresis and convulsions, were noticed in children. Guiteras writes concerning the dermatoses of influenza. The most important he finds to be the erythema which occurs in certain cases, and which so particularly marks them that he gives it the name influenza erythematosa. This so closely resembles scarlet fever that a very careful diag-

<sup>20</sup> British Medical Journal, 1890; Journal American Medical Association, August 2, 1890.

<sup>21</sup> Lancet, April 26, 1890; Analectic, May, 1890.

<sup>22</sup> Lancet, May 3, 1890; Analectic, July, 1890.

<sup>23</sup> Lancet, June 7, 1890; Analectic, July, 1890.

<sup>24</sup> Wiener Medizinische Presse, 1890; British Medical Journal, July 19, 1890; Therapeutic Gazette, August, 1890.

<sup>25</sup> Orvosi Hetilap, 1890.

<sup>26</sup> Therapeutic Gazette, February, 1890.

<sup>27</sup> Edinburgh Medical Journal, August 1890; Analectic, August, 1890.

<sup>28</sup> Medical News, July 5, 1890.

<sup>29</sup> New York Medical Record, February 22, 1890.



nosis is required to differentiate them. Herpes labialis was found in several cases, principally in the catarrhal form of the disease; miliaria in the papular form; urticaria has occurred in the gastric form.

The treatment of *la grippe* and the difference between that which prevailed during the second winter from that of the first is the subject of a discussion participated in by Childs<sup>30</sup> and nine others. They used quinine, Dover's powder, phenacetine, salicylate of sodium, salol, and digitalis. The editor<sup>31</sup> of the Medical Press and Circular mentions the treatment of the Russian hospitals, as antipyrin, gr. 10, codeine, gr.  $\frac{1}{6}$ , with a little bicarbonate of sodium. A spray of wine of ipecac and a dose of Dover's powder at bedtime has the credit of aborting the disease. Quinia and tonic meat and wine preparations are very useful after the acute stage has passed and the patient enters upon a limp and protracted convalescence. Dujardin-Beaumetz<sup>26</sup> and other Paris physicians used quinine, also exalgine and analgesine. Hurchard<sup>32</sup> says the severe nervous prostration requires alcohol and quinine, and in bad cases even injections of caffeine and ether. In the neuralgic or rheumatoid form of influenza, antipyrin, 15 grains, combined with the bicarbonate of sodium, 7.5 grains, is recommended every four hours, or, instead of antipyrin, phenacetine or salol, 7 grains. Guiteras<sup>3</sup> highly recommends whisky to counteract the great prostration, and digitalis where the heart is weak.

Electricity in the treatment of neuralgic and rheumatic pains of influenza has been remarkably successful in the hands of Worthington.<sup>33</sup> In some cases the relief was immediate and permanent. The pains in the back, groin, and sternum, of which so much complaint has been made, yield at once to thirty or forty cells of Leclanche's battery.

Shrady<sup>3</sup> says, in a valuable editorial review of the epidemic, that we have on the whole passed through as well as could be expected, and better than was feared. There has been a

good deal of suffering, and many have to mourn for those whose sufferings are past; but there is less of this than might have been, and now that the enemy has gone we may congratulate ourselves that his guns were not so large as we feared they were when we first heard their echoes from a distance.

CINCINNATI, OHIO.

## Reviews and Bibliography.

**Fever: Its Pathology and Treatment by Antipyretics.** Being an Essay which was awarded the Boylston Prize of Harvard University, July, 1890. By HOBART EMORY HARE, M. D., B. Sc. 166 pp. Price \$1.25. Philadelphia and London: F. A. Davis. 1891.

This essay was presented to the Boylston Prize Committee of 1890 under the title of "The Value, Uses and Value of Antipyretics." Following an introduction on the nature of fever, in which the author takes a middle ground as to the harmfulness of fever *per se*, we are given an elaborate disquisition on the principal synthetic drugs which have come into use as antipyretics. These are antipyrin, antifebrin, phenacetine, thallin, and salicylic acid and its compounds.

The conclusion reached by the author is that antipyrin stands foremost in the ranks of antipyretic drugs, with antifebrin next, while thallin and phenacetine follow with perhaps a preference for the latter. In pain antipyrin also takes the lead, but phenacetine is quite as useful an analgesic as antifebrin, and seems more safe. Thallin possesses hardly any such power. As a general rule marked depression and adynamia follow the use of all antipyretic drugs, although exceptions to this rule may of course occur. Finally, the author adds, in words that may be denominated golden by those who believe with the writer of this review that up to this date the synthetic coal-tar derivatives have killed ten patients to every one that has been saved by them, "For wide-spread application, to be put in the hands of the inexperienced, to be efficacious and yet quite harmless, cold sponging is the antipyretic *par excellence*; but even this must be used carefully and with intelligent ideas of its objects and results." We think it

<sup>30</sup> Southern Medical Record, January, 1891.

<sup>31</sup> Medical Press and Circular, December 25, 1889; Therapeutic Gazette, August, 1890.

<sup>32</sup> Revue Generale de Clinique de Therapeutique, December 12, 1890; Therapeutic Gazette, February, 1890; Lancet, December 21, 1889; Medical Record, January 11, 1890.

<sup>33</sup> British Medical Journal, 1890; Journal American Medical Association, June 28, 1890.

would hardly be saying too much to assert that it is the duty of every one who is accustomed to employ these drugs to read this essay of Dr. Hare.

D. T. S.

**The Physical Diagnosis of Diseases of the Heart and Lungs, and Thoracic Aneurism.**

By D. M. CAMMANN, B. A. Oxon., M. D. 188 pp. New York and London: G. P. Putnam's Sons. 1891.

This is a clearly written treatise, published in attractive form and in large, bold type, making easy and pleasant reading. It is not by any means an exhaustive work, nor does the author seem to have the subject-matter well in hand; that is, he does not seem to keep clearly in view the point at which he is aiming. There are no innovations, and his teachings are uniformly orthodox, except it may be as to the source of crepitant râles. In this he agrees with those who deny that crepitant râles come from the separation of the walls of sticky air-cells, and he seems to us to clinch his argument with the suggestion that only one sixth of the air is exhaled from the lungs in ordinary expiration, the tidal air being twenty inches and the residual one hundred and twenty, and that it is therefore impossible for the walls of the air-cells to come together under the circumstances. As the son of the inventor of the binaural stethoscope, Dr. Cammann has the advantage of starting out with a name that is already familiar to the profession.

D. T. S.

**Diabetes: Its Causes, Symptoms, and Treatment.** By CHARLES W. PURDY, M. D. With clinical illustrations. 184 pp. Price \$1.25. Philadelphia and London: F. A. Davis, publisher. 1890.

This treatise, which forms No. 8 of the Physician's and Student's Ready-Reference Series, is a clearly written, concise, and altogether attractive presentation of the etiology, symptomatology, pathology, and treatment of diabetes. While it contains little that is new, except as to the relation of diabetes to climate and elevation, it is exhaustive of all that is positively known. The author gives statistics to prove that two factors combine as determining causes of diabetes. These are elevation above the sea

level and low temperature, and that, other things being equal, diabetes will be abundant in proportion as these two factors act in combination. The generally approved dietetic treatment consists of gradually dropping the foods that are readily convertible into sugar and restricting the diet in the direction of a pure animal diet. On rest, mental, moral, and physical, that is so favorable in the whole family of diseases marked by lowered vitality, the author insists with an earnestness justified by its importance. In his views on the medical treatment the author is very moderate.

D. T. S.

**The Pocket Materia Medica and Therapeutics.**

A Resumé of the Action and Doses of all Official and Non-official Drugs now in common use. By C. HENRI LEONARD, A. M., M. D. 300 pp. Price \$1. Detroit, Mich.: The Illustrated Journal Company.

With characteristic industry Dr. Leonard has collected here in alphabetical form a list of all the drugs, official and unofficial, that up to the present time have found their way into medicine. A brief but clear description of each, with its uses, is given, and all in such a way as to most effectually economize time in their study.

**Medical Symbolism in Connection with Historical Studies in the Arts of Healing and Hygiene.** Illustrated. By THOMAS S. SOZINSKEY, M. D., Ph. D. 171 pp. Philadelphia and London: F. A. Davis, publisher. 1891.

This work is intended to show the origin and history of the various symbols used in medical writing and in paintings relating to medical matters. The author by his high scholarship and rare tastes was well equipped for his task. He appears to have delighted in brushing away the cobwebs in the odd corners of knowledge. But for the all too early death of the author he would doubtless even further improved his book in the direction of greater unity of plan; but he has made it altogether instructive, and it will doubtless prove a helpful aid in the artistic aspects of medical literature.

The work is No. 9 in the Physician's and Student's Ready-Reference Series.

D. T. S.



**Koch's Remedy**, in Relation especially to Throat Consumption. By LENOX BROWNE, F. R. C. S., Ed. Illustrated by fifty-one cases and by fifty original engravings and diagrams. 114 pp. Philadelphia: Lea Brothers & Co. 1891.

This is one of the echoes of the craze that so recently dominated the medical world and through it the laity, only a brief year ago, much in the same way as delusional epidemics used to sweep over the people in the Middle Ages. Those who said the least, who wrote the least, and above all those who wrote no books are the happiest. This book, got up in large, clear print, colored plates, and neat binding, forms as comely a cenotaph as has yet been erected to Koch's tuberculin. D. T. S.

**Essentials of Surgery**, together with a full Description of the Handkerchief and Roller Bandage. Arranged in the form of questions and answers; prepared especially for students of medicine. By EDWARD MARTIN, A.M., M.D. Illustrated. Fourth edition, revised and enlarged by an appendix containing full directions and prescriptions for the preparation of the various materials used in antiseptic surgery; also several hundred receipts covering the medical treatment of surgical affections. 334 pp. Philadelphia: W. B. Saunders. 1891.

This work, like all the others of the Saunders's series of compends, is printed in clear type, on good paper, and attractively bound. It is already so well and favorably known through three former editions that further commendation of its worth would be superfluous.

D. T. S.

#### **Manual of the Domestic Hygiene of the Child.**

For the use of Students, Physicians, Sanitary Officials, and Mothers. By JULIUS UFFELMANN, M. D., Professor of Internal Medicine at the University of Rastock. Translated, with the author's permission, by HARRIET RANSCHES MILINOWSKI; edited by MARY PUTNAM JACOBI, M. D. 229 pp. New York and London: G. P. Putnam's Sons. 1891.

It would be a difficult undertaking to speak too highly of this contribution of the eminent Rastock professor to the science of the hygiene of children. It is indeed a scientific contribution. There have appeared numerous manuals on nursing and advice to mothers, but it was

easy to perceive that they were largely made up of more or less loosely formed opinions. This work embraces a survey of all the statistics of value that have yet been collected, made by one of the ripest judgment and the largest experience. Here are given the results of the weight and measurement of large numbers of children nourished on various definite kinds of food, and raised under different surroundings. Every care that the child should receive is here intelligently and clearly pointed out, and, indeed, one may also say authoritatively. The work is truly classical. D. T. S.

**Origin, Purpose, and Destiny of Man.** By WILLIAM THORNTON. 100 pp. Boston: published by the author.

An unusual degree of courage, not to say hardihood, has been displayed by the author of this work in tackling so grand a theme with an equipment so defective. He has not, however, failed to observe the due relation and fitness of things. If the subject is vast, Mr. Thornton has brought to its discussion the largest words his mother tongue affords; and if it is intricate and sublimely profound, he offsets these attributes in a style that is unsurpassed in its dense obscurity. The book might fairly repay a hasty glance at the title page. D. T. S.

**Materia Medica and Therapeutics**, with special Reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, A. M., M. D. Being the second and last volume of a Treatise on Materia Medica, Pharmacology, and Therapeutics. An Independent volume upon Drugs. Royal octavo. 675 pp. Price, cloth, \$3.50; sheep, \$4.50. Philadelphia: F. A. Davis.

Dr. Shoemaker has at last given us the long-promised second volume of his work on *Materia Medica*, and it will certainly not disappoint the expectations of the many friends of the energetic, versatile, and gifted author. The work includes every officinal drug and every preparation in the United States Pharmacopeia, giving also the strength, composition, and dosage of each, the most reliable reports of the actions and uses of the most noteworthy of the new remedies, and is in short a complete ency-

clopedia of modern therapeutics in a condensed form. Due attention is given to the diagnosis and treatment of poisoning by the more active drugs, both officinal and non-official; and it also gives a large number of prescriptions and practical formulæ, the outcome of the latest achievements in clinical medicine. It forms a very complete, convenient, and compendious work of reference, being intended in fact as a companion to the United States Pharmacopeia, a drug encyclopedia and a therapeutic handbook all in one volume. D. T. S.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The Prince of Wales has appointed the Earl of Limerick Director of the Ambulance Department of the Order of the Hospital of St. John of Jerusalem in England. Since the opening of the last winter session, on October 1st, over 28,000 first aid and nursing certificates have been issued.

It appears that the promoters of the Hygienic Congress had expressed a wish that twenty-four members of the Engineering Section should be permitted to visit the Wolverhampton Sewage Farm, which affords one of the best and most economical means of dealing with the refuse of a large inland town. The Mayor intimated that the twenty-four scientists would be welcome, and invited some fifty aldermen, councillors, and other prominent local men to meet the distinguished visitors at a luncheon at the Victoria Hall, Wolverhampton. Further, the borough surveyor prepared a paper describing the Sewage Farm, and vehicles were engaged to drive the party from Wolverhampton to the farm. The chairman of the Sewage Committee interrupted a holiday and came over purposely to describe the drainage system, but not a single member of the Congress put in an appearance. The Mayor met the train the expected visitors were to have traveled by, and he was astounded at their absence. At the luncheon there was some plain speaking, as no word of explanation or apology had been telegraphed.

The Army Medical Report has just been published. From it is learned that the average strength of the troops serving at home and abroad, as computed from the returns furnished, was 199,448 warrant officers, non-commissioned officers, and men (exclusive of certain corps which are recruited locally in the Colonies). The admissions into hospitals in this force were 198,823, and the deaths 1,831. The rates represented by these numbers are, for admission into hospital 1,006.9 and for deaths 9.17 per 1,000 of the average annual strength. Speaking generally, the figures are considered to be satisfactory as compared with those of the previous ten years. The death-rate for the United Kingdom was 4.57 per 1,000. Egypt shows a mortality ratio of 12.24 per 1,000; India and Ceylon show similar death-rates, 17.12.

The housing of the crews in modern fighting ships is, Dr. Coppinger says, apt to be regarded as of secondary importance with the provisions of space for carrying the greatest possible quantity of fighting material, and this is an evil which is constantly increasing. Something is done on turret and barbette ships for artificial ventilation by rotary fans, but fresh air at sea, strange as it may sound, is still found in the Queen's service afloat to be rather a scarce commodity. Dr. Coppinger, who is a fleet surgeon, declares his preference for the apparatus which supplies, that is drives in, pure air as compared with that which merely exhausts the vitiated air, leaving the purer atmosphere to take its place as best it may. Almost equally important and scarcely less urgent is the question of temperature. The present method of warming the men's quarters by means of "bogey fires" is pronounced to be troublesome, dirty, and dangerous. Dr. Coppinger recommends a system of steam pipes disposed throughout the berthing deck.

The mortality of London last year exceeded that of any of the previous five years. Such is the unwelcome fact announced by the Registrar General in his annual summary. This rise in the metropolitan death-rate has the further significance of being what is described as "an interruption to the almost unbroken fall in the London mortality that began in



1879." The deaths in London last year from all causes exceeded those of 1889 by more than fifteen thousand. If the average death-rate of the decennial period which ended with 1889 had been maintained last year in regard to certain prominent diseases, the deaths so caused would have been fewer by more than fifteen hundred. Measles, cancer, and whooping cough were increasingly fatal. There was a large excess of deaths from diseases of the respiratory system, due to an enormous mortality from lung complaints. Considerably more than two thousand deaths were due to influenza in the first four weeks of 1890.

Scarlet fever has been largely reduced in its mortality of late, and it is observed that the diminution has been concurrent with a constantly increasing use of the Metropolitan Asylum Hospitals for the isolation of the sufferers. Smallpox is practically extinguished in London as a cause of death, only four fatal cases from this disease occurring in 1890, and less than fifty in the last five years. With one exception the deaths from diphtheria last year gave the highest rate yet recorded in the metropolis. The distribution of the general mortality in the metropolis is hardly what had been expected, for after allocating deaths in hospitals to the districts whence the patients came, the death-rate from all causes is found to be highest in the central districts, the eastern districts having a considerably lower rate. The mortality of the central districts is more than fifty per cent above that of all London; but in the death-rate from the principal zymotic diseases the eastern districts take the lead, though the central are not far behind. Of deaths in the streets due to horses and conveyances the number greatly exceeds that reported by the police, who necessarily do not gather up such complete data as the Registrar General. The killed in consequence of accidents in connection with the street traffic of London last year amounted to two hundred and seventy. There were as many such fatalities in 1882 and nearly as many in 1884 and 1885. A remarkable fact as affecting the balance between life and death is that the birth-rate in London last year was by far the lowest yet recorded. As this was not counterbalanced by a corresponding decline in

the death-rate, the natural increment of the population is less than forty thousand instead of reaching to nearly fifty-three thousand. The marriage-rate shows a slight improvement compared with the previous three years, but is otherwise the lowest that has been recorded since the present system of registration commenced.

Dr. Parker, who has the direction of the laboratories of the Conjoint Board, has published a third edition of his work on "Diphtheria; Its Nature and Treatment, with Special Reference to the Operation after Treatment and Complications of Tracheotomy." With regard to the question, ought chloroform to be used in the operation of tracheotomy, Mr. Parker strongly recommends its use, and says if it be slowly and carefully administered the patient can be sent off to sleep without any trouble or danger. After drowsiness has set in the inhalation may be given more rapidly. "It is the choking sensation of a large dose of chloroform suddenly applied which leads to struggling." With regard to the method of operating, Mr. Parker divides the integument with an ordinary scalpel and then cuts direct into the trachea without any dissection. By thus making the least possible disturbance of the tissues the chances of septic infection are greatly lessened.

Sir Morell Mackenzie, accompanied by Mr. Henry Irving and Miss Ellen Terry, has recently been spending a few days in the country. Mr. Irving, it appears, was suffering from a slight affection of the throat, and was under the care of the great specialist. One day they called at the one and only chemist's in the little town of Coleford for the purpose of having a prescription made up for the famous actor. Being Sunday the chemist was out, but his wife, who happened to be at home proved quite equal to the occasion. She set about finding the ingredients required, but was unable to dispense them herself. Sir Morell, pestle and mortar in hand, stood behind the counter, much to his own amusement and that of his friends. The medicine made up, the druggist's wife begged the autographs of Sir Morell, Mr. Irving, and Miss Terry, which were readily given and are proudly treasured.

By the will of the late Miss Agnes Watson, of Glasgow, the sum of £6,000 or more falls to be divided between the Glasgow Royal Infirmary and the Glasgow Royal Hospital for Sick Children. Among other legacies Miss Watson leaves £500 to her medical attendant.

Pilocarpine has proved very beneficial in edemaglottis. In a severe case three injections, amounting to  $\frac{1}{25}$  grain, were given at intervals of twenty minutes. After the first injection improvement was visible, and one quarter of an hour after the third all dangerous symptoms had disappeared.

LONDON, September 1, 1891.

## Abstracts and Selections.

**THE TREATMENT OF CHRONIC RHEUMATIC ARTHRITIS.**—The greater precision in the nomenclature of certain joint affections which has characterized recent literature renders it necessary to defend the title I have chosen for this paper, lest it should be supposed by some, who prefer to limit the term rheumatic arthritis to one class of joint affections only, that the methods of treatment here alluded to are restricted in their applicability to that form of chronic arthritis which has been at some period of the patient's history preceded by an attack of rheumatic fever. Let it then be understood that the term rheumatic arthritis is employed in its widest sense, to include all affections of the joints which present the clinical features of pain, swelling, and the impairment of function, unaccompanied by redness and increased temperature, and in which, after careful examination, no evidence of suppuration or advanced destruction of tissue can be discovered. In other words, I would include among the cases successfully treated by the means to be presently recorded all forms of arthritis resulting in a lymph-logged state of the articulation itself, and of the tissues surrounding it, always excepting the condition known as *hydrops articuli*, for which there are more expeditious surgical means of relief.

The tendency to differentiate the various forms of arthritis, which has been so greatly accentuated of late, affords some excuse for temerity in discussing very briefly the etiology of arthritis, whether preceded by acute rheumatism, traumatism, or gonorrhoea; for in spite of the contention of some observers that chronic arthritis occurring after the two latter accidents has no causal affinity with that which follows

the former, the experience afforded by over one hundred cases has strongly impressed me with the belief that, whatever may have been the predisposing cause of the joint affections variously termed chronic rheumatic arthritis, rheumatoid, gonorrhoeal, and traumatic arthritis, the exciting cause is the same in the acute stage, and in the subsequent recurrent subacute attacks to which most of these joints are liable.

With the researches of Dr. Alexander Haig on this point the reader is doubtless familiar; but it may not be uninteresting if, at the risk of presuming too much on observation based on a limited number of cases, I venture to record certain facts bearing on the uric-acid theory of Dr. Haig, some of which were noted before the more conclusive papers he has written had been published.

In all the cases of arthritis which have come under treatment at my hands there has been marked evidence and a distinct history of prolonged exposure to cold on one or more occasions, immediately followed by inflammation of an acute or subacute character in the joint affected. Associated with the arthritic trouble there has also been noticed pain and stiffness of certain muscles in the same limb, or pain and tenderness along the course of a nerve. Frequently when the patient has come under observation one has observed localized thickenings or tumefaction of the atrophied muscles in connection with the joint, and in cases where the thickening has occupied a superficial area of sufficient size to permit the application of an electrode to the overlying skin, without encroaching on the surface of the muscle outside the zone of infiltration, it has been found that there was in these situations not only loss of contractility, as in the rest of the atrophied muscle, but total loss of electrical irritability on the passage of a mild faradic current. In such cases there has always been a history of fatiguing exercise followed by prolonged exposure of the limb to cold or damp. Examples of fatigue followed by exposure to direct cold impressions, as afforded by the notes of cases which have come under my care, are so numerous that the whole of this paper might easily be occupied in citing them; and here let me say that at any rate, in the majority of instances, testimony to the predisposing influences of cold preceded by fatigue has been afforded by patients without the aid of "leading questions," and long before I had mentally formulated any opinion on the etiology of muscular or arthritic rheumatism. But my own experience tends to strengthen my belief in the importance of fatigue and exposure as factors in the causation of rheumatism. For some hours daily at all seasons throughout



the year I am engaged in very vigorous exercise of the arms, at the same time almost always standing while so employed. In summer, and when the aerial temperature is comparatively high, there is rarely any painful sense of fatigue in the upper extremities save toward the end of a heavy day; but in winter, and especially when there is a strong northeasterly wind, I am rarely free from an aching in the arms, which is increased to actual pain if I go out of doors immediately after completing two or three hours of massage. The fingers become much swollen, and the wrist-joints also swell and ache. More especially this condition is noticeable if I have allowed myself any gastronomic indulgence. In wet weather the tendo Achillis, just at and above its insertion, becomes painful and stiff. Now these personal observations, taken together with the observations made on persons suffering from one or other form of chronic arthritis, induce a strong belief in favor of the opinions held by Dr. Haig on the rôle of uric acid in the causations of rheumatism.

Sir A. Garrod has pointed out that the joints are more acid than other tissues under ordinary circumstances, and it may well be believed that after vigorous use of the joint, for instance, the knee in riding, etc., the "fatigue stuffs" are increased therein, and more acid is generated.

Du Bois Reymond has pointed out the active muscle "passes into an acid reaction," which he attributes to the formation of paralactic acid; while others attribute the acidity to phosphoric acid, or to acid potassium phosphate.

Now if the active circulation through a limb be interfered with, as it certainly is by prolonged exposure to cold and damp, it follows that the removal of these acid fatigue-products will be retarded, and Dr. Haig has pointed out that excess of acidity in the tissues will favor deposition of uric acid in them, and if I understand him aright, it is to the irritation set up by uric acid, thus rendered insoluble in the acid media of the joints, that rheumatic inflammation is due. So far as experience of my own sensations may serve, the painful, dull aching of subacute rheumatism is closely akin to the sensory effects of over-fatigue, though it is true this is more markedly so in regard to the muscles than to the joints. But if we compare the effects of rheumatism with those of fatigue, we find them still more closely allied in reference to the dynamometry of muscular contraction, for the over-fatigued muscle is as incapable of work as that which is the seat of rheumatism. It is not unreasonable to suppose that the inaction of the muscles associated with a rheumatic joint greatly tends to induce the

prolonged accumulation of waste products both in the articulation itself and the tissues surrounding it. The lymph-pumping functions of the muscles acting on the joint are thrown into abeyance, and the influence of muscular contraction in aiding the onflow of the venous current is lost; moreover the intra-muscular arterioles are contracted, and thus the blood-supply to these structures is seriously interfered with, so that the washing out of morbid products both from the joint and muscles affected is retarded, thus further increasing the stasis in the inflamed foci. And inasmuch as few cases of chronic arthritis do not afford evidences of inflammatory deposits in the fibrous and muscular tissues in connection with the joint (the lymph-spaces in the connective tissue surrounding these structures often being clogged and matted together, so that the movements of tendon and muscle are alike mechanically impeded), it is not surprising that after one attack of rheumatism the fibro-serous tissues are peculiarly liable to a recurrence of inflammation should they be exposed to a repetition of the predisposing and exciting causes.

Given a case of chronic rheumatism, whether uni- or multi-articular, the question arises as to what is the best method of treatment to be adopted. The indications undoubtedly are to relieve pain, to hasten the removal of inflammatory products in and about the joint, and thus to restore it to painless utility, while at the same time muscular atrophy is to be arrested or cured, and the infiltrations of the muscular and fibrous connective tissue so frequently met with to be removed. Meanwhile, for the general health, always more or less needing improvement, constitutional remedies, dietetic and other, must be employed.

But of these latter I do not propose to treat at this time, and will therefore, as briefly as possible, describe the methods which have proved most useful in the local treatment of this malady or class of maladies. And here let me say, that so far as the employment of massage or electricity are concerned in the treatment of these affections, I can not claim any originality, for, as the reader is aware, the former has been used in some fashion from time immemorial, and the latter by Erb, Remak, and others much in the same way as by myself, though I have not had the opportunity of learning the details of their mode of application beyond the scanty information on the subject afforded by Erb in the sixth volume of Von Ziemmsen's Hand-book of General Therapeutics.

The treatment of chronic articular rheumatism by massage, galvanism, and exercises, passive and active, has, so far as I am aware,

not yet been described, and it is from this therapeutical combination that I believe the best results are to be obtained.

Massage is best employed in severe cases, wherein there is much pain and thickening in and around the joint, with atrophy of muscles and intra-fascial tumefaction, for a few minutes several times daily; centripetal friction gradually increasing in firmness, and subsequently combined with kneading of the proximal muscles connected with the joint, being applied at first as far from the focus of mischief as possible, the lightest friction of the whole limb alone being permissible at the beginning of treatment. Cautiously the firmness and near approach of manipulation to the joint may be increased till the joint itself is, in the course of a few days, submitted to thorough manipulation of a somewhat complicated character, having for its object the dispersion and mechanical moving onward of the accumulated waste products, the improvement of circulation, and the stimulation of lymphatic resorption.

At the same time and from the first the joint is subjected to the direct passage of a stabile galvanic current, by applying in as close proximity to the joint itself as possible, on opposite sides of the articulation, two electrodes of known dimensions, through which are transmitted from ten to fifteen milliamperes for ten to twenty minutes daily by voltaic alternation.

On the density of the current I believe the efficacy of the treatment by stabile constant current depends, and after repeated experiments and some considerable practice I believe the present form of electrodes in use to be the best for the different joints affected. One exception to the local stabile application of the constant current must be made, that is, in the case of the finger-joints. Here the size of the electrodes is necessarily much reduced if we apply them to opposing surfaces of the joint, so that in this case I have found better results follow the use of one electrode over the joint and the other in the palm of the hand, the same density being employed as in the larger articulations.

Here let me draw your attention to two interesting points in relation to the employment of this combination of massage and electricity.

I have frequently, indeed always, observed not only in the application of the constant current to joints, but under all circumstances in which the percuticular mode is used, that massage of the parts over which the electrodes are to be placed, when practiced directly before the employment of galvanism, reduces resistance to the passage of the current very considerably; in other words, the number of cells necessary to afford the passage of ten milliamperes through

the circuit when any given electrodes are employed may be reduced at the outset of the application by as much as one third, sometimes by more, if the part be well vascularized by massage previously. This has not, I believe, been recorded, but perhaps it is so obvious a result of increasing the volume of fluid in the *cutis vera* and subjacent structures that writers on electricity have not thought it worthy of notice. Another point, and a striking proof of the efficacy of the treatment, is the gradually diminishing resistance opposed by the diseased joint to the passage of the current from time to time as the absorption and removal of waste and inflammatory products proceed.

In the earlier days of treatment, while as yet the patient can not bear very vigorous manipulation, and while it would be injudicious for other reasons to employ powerful and deep muscle-kneading, the labile application of the ascending current to the muscles of the limb is attended by diminution of pain and stiffness, due perhaps to the same causes as Heidenhain has shown to follow the application to a dead muscle, which is fatigued by faradism and refreshed by galvanism.

The passive exercise of the joint is gently practiced as early as possible, care being taken that too much suffering is not produced. One or two movements at each visit, the range of attempted motion being gradually increased, till at last the patient is told to aid, and independently to perform, the exercises most suitable to the particular condition of the joint, will slowly but surely overcome the tendency to muscular spasm, which is almost always produced by the initial movements; and finally, after a period varying with the constitutional and local severity of the case, the resumption of power to use the limb and move the joint without pain will reward the prosecution of a somewhat laborious mode of treatment. This, in long-standing and severe cases, may tax the patience of both the sufferer and the physician, but will, in the great majority of cases, result in recovery.—*A. Symons Eccles, M. B., London Practitioner.*

**GRAFTING CANCER IN THE HUMAN SUBJECT.**—At a recent meeting of the Paris Académie de Médecine, Cornil reported two cases of successful grafting of malignant growths in the human being. He stated that the first case had been communicated to him by a foreign surgeon, whose name he withheld, and whose act he did not justify. This surgeon removed from a woman a breast which was the seat of an enormous tumor; then while the patient was still under the influence of the chloroform, and of course without her consent,



cut a small section of the tumor and inserted it under the skin of the opposite healthy breast, using the strictest antiseptic precautions. The wound healed by first intention and for the first few days nothing was noticed at the site of the graft, but soon an indurated nodule developed and in two months, having grown to the size of an almond, was removed by the same surgeon.

Both tumors were examined by Cornil, who found them to be sarcomata and identical in structure. The ingrafted portion of the first tumor had become a part of the healthy breast; vessel anastomoses had occurred, its cells had penetrated into the healthy adjacent tissues, and its rapid growth was indicated by the karyokinesis of the cells. Shortly afterward the patient died of some acute intercurrent malady, and the autopsy, which was made with great care, revealed no trace of sarcoma in any portion of the body, neither in the lymphatic glands, internal organs, or the spongy tissue of the bones.

In the second case a portion of a tumor removed from a breast was in a similar surreptitious manner inserted into the healthy breast of the patient. This tumor proved to be an epithelioma. The second graft, like the first, produced no inflammatory reaction, but later at the sight of its insertion a nodule developed. The patient declined to have the second breast removed, and disappeared from the surgeon's observation.

It is pleasing to note that the French Academy at the close of the reading of this paper, expressed only its stern disapprobation of the methods employed, and by silence refused to discuss the scientific aspects of the cases. The indignation was not confined to the Academy, but also found vent in the public press, and Cornil felt compelled to defend himself in a letter to *Le Temps*, in which he defends the publication on somewhat remarkable ground. He compares it to the breaking of a bridge in a railroad accident, the causes for which are sought in the midst of the calamity. He further instances the well known case of Alexis St. Martin, whose accident gave Dr. Beaumont an opportunity to investigate the function of the stomach. From these he urges that while we must condemn the surgeon who did the work, we ought not to ignore whatever the unfortunate occurrence may teach us. This is pure sophistry. It ignores the grand object of medicine, which is to relieve suffering, not to acquire abstract knowledge. And questions which require for their solution the infliction of needless suffering on human beings, must wait until a proper opportunity for their solution presents itself. We can not afford to stultify

our profession, whose great boast and whose legitimate boast is its humanity, by such criminal acts.

Putting humanity entirely in the background, such experiments can not be defended even in the name of science, for they are not scientific. They prove only that the implantation of a sarcomatous or epitheliomatous mass in persons already suffering from the corresponding disease is capable of causing a local sarcomatous or epitheliomatous growth. This does not prove that these growths are infectious, for who can say that some other form of irritation in these same individuals would not have caused like results? The gain to science by these experiments is decidedly problematic, at most it is insignificant and utterly incommensurate with the cost at which it is obtained. We could far better have afforded that such experiments should have forever remained untold, than have gratified, perhaps to some extent justified, the individual who made them. If, however, the storm of indignation which has been aroused shall deter others who might have in view, in their zeal for science, similar unjustifiable experiments, Cornil's publication will have had a real though unexpected value.

It remains to be said that since the Parisian affair, Profs. Hahn and von Bergmann, of Berlin, have both been openly charged, by an officer of the German Government, with having inoculated cancer in the healthy human being. Their reply has not yet come to hand.—*Journal American Medical Association*.

THE VALUE OF CHLORALAMID AS A CALMATIVE IN THE FINAL STAGES OF HEART-DISEASE. Chloralamid being of the newer remedies, I feel that the report of cases bearing upon its action in detail would be of value to the profession. It appears to me that we are apt too frequently to look only at the more decided and outspoken action of remedies, thus failing to note their smaller and more remote characteristics, the latter characteristics oftentimes becoming of the greatest value in prescribing. I therefore beg to offer the following notes:

Mrs. M., aged sixty, had been a sufferer from heart-disease for the past eight years. When she first consulted me, two and one half years ago, dyspnea, cough, and consequent inability to sleep caused her the greatest suffering. Aortic stenosis was found existing at that time. One year ago she was ailing all winter, but the warm weather of early summer aided her convalescence. The advent of cold weather last fall again increased her suffering. Dropsy, which had heretofore been very slight, being only noticeable at the ankles, now gradually increased, and the urine

became albuminous. The disease slowly progressed toward its fatal issue. I had been gradually forced by her suffering to increase the quantity of morphine, which I had first started in small doses hypodermically, until it became ineffectual, except in such large doses that I feared it might prove disastrous. My thoughts now turned to chloralamid, which I had used as a mere hypnotic, but had not tried in such extreme cases. I had given it in only one case of heart-disease, that being a mild case of aortic disease, characterized by insomnia and debility, no failure to any extent in compensation having occurred. At that time I could find nothing in literature that would give me information as to its freedom from danger in such cases. I therefore began its administration cautiously. My patient at this time could not lie down. She would occasionally get one to three hours' sleep under a large dose of morphine hypodermically. Chloralamid was begun in 10-grain doses, at first using a smaller injection of morphine, until 40-grain doses were administered. The morphine was gradually lessened, and finally its administration ceased. The patient obtained better and longer rest and sleep in a recumbent position than when morphine alone was being administered. I watched its effects closely, and was gratified to find the pulse not made worse, but rather improved.

The case terminated fatally, but the relief obtained by promoting slumber in a recumbent posture by means entirely within the bounds of safety makes the remedy of great value in this class of cases.—*Dr. J. A. Patterson, Therapeutic Gazette.*

**THE GALLATE OF BISMUTH.**—In a preliminary communication Drs. Heintz and Liebreich announce, in the *Gazette Médicale de Paris*, June 20, 1891, that they have found in the gallate of bismuth, which they baptize with the name of "dermatol," a topical application, which they recommend as a substitute for iodoform, in that it possesses all the properties of the latter substance, with the great advantage of being inodorous.

The gallate of bismuth occurs in the form of a fine powder, without odor, of a yellowish-saffron color, and of an aspect somewhat similar to iodoform. It is not hygroscopic, and does not decompose when exposed to the air or the light. It is insoluble in ordinary solvents, and consequently is free from toxicity, for when applied to a raw surface, such as that of a wound, it is absolutely incapable of absorption. It is said not to act as an irritant on the surfaces with which it comes in contact. It possesses considerable desiccating pow-

er, and to this extent acts as a stimulant. The authors state that their clinical experiments with dermatol, which have already amounted to more than one hundred, show that cicatrization is rapid and the formation of granulations favored, while the secretion of pus is diminished. They have used this salt in the treatment of burns, in eczema, in ulcerations, in ocular affections with painful morbid secretions, in affections of the nose and ears, and especially in otorrhea; finally, they add, that the gallate of bismuth may be administered internally in the dose of 30 grains without producing the slightest symptom of poisoning, and it may thus be substituted for the subnitrate of bismuth in affections where this preparation is indicated.—*Ibid.*

**A CASE OF TETANY.**—Isabella D., aged twenty-one, residing at Leith, was seen and examined at the Infirmary, March 22, 1891, whither she had come to be treated for what she called "cramps" of both hands.

She is a well-nourished, healthy-looking girl, living with her parents in comfortable circumstances, and her work was ordinary housework. With the exception of attacks of neuralgia during the winter of 1889-90 she had had no previous illnesses, and as a cause for her present state no depressing agencies, physical or mental, can be elicited. It is noteworthy, however, that she has a somewhat enlarged thyroid gland. For some weeks before last New Year and since, she says that she has been feeling a numbness in her hands and arms, especially the right. This numbness has been felt every day, more or less, since the New Year, and seems to come on or get aggravated whenever she goes out into the air. She also feels numbness in the face, especially in the eyes and upper lip. The lips then feel as if stretched over the gums.

In addition to this numbness she experiences, when exposed to cold or when excited, the so-called "cramps," that is, the condition of tetany in her hands and arms, and to a less extent in her feet and legs. These cramps have been coming on nearly every day since the New Year, and lasting for two or three hours, and she states distinctly that the numbness does not always precede the "cramps," and that the "cramps" sometimes occur without numbness. They occur mostly in the morning, but sometimes at night, and their onset during sleep has sometimes awakened her.

When the cramps are present the hands show the characteristic position of tetany. The fingers are straight, flexed, however, somewhat at the metacarpo-phalangeal joints, and are slightly inclined to the ulnar side. The thumb,



also straight, is drawn strongly into the palm, the hand assuming, as aptly described by Trouseau, a shape like that of the hand of the accoucheur when he introduces it into the uterus. The muscles of the forearm feel hard and contracted, but the patient, during the existence of the cramp, can still move the fingers to some extent. There is also, when the tetany is present, great vaso-motor dilation so that the hands are darkly congested, as in the asphyxia stage of Raynaud's disease, and the patient states that during the "cramps" they sweat a good deal.

In the feet the toes are bent toward the sole. The dorsum of the foot is strongly arched and the heel pulled up by the muscles of the back of the leg. There is also some tendency to vaso-motor dilation, but the symptoms as a whole are much less pronounced than in the arms.

These "cramps" seem to come on readily when the parts exposed to cold, and pressure on the nerves and vessels of the limb seem to some extent also to bring them on.

There is no anesthesia, and on testing the electric reactions of the affected muscles it was found that with the interrupted current their irritability was slightly less than that of the muscles of a healthy individual examined at the same time (that is, contraction occurred in her case when the secondary coil was at 5.5 centimeters from the primary, as compared with 7 centimeters in the case of the healthy individual. With the galvanic current the order of contraction was the normal one, viz., Kcl, Acl, Ao, Ko; and with 15 cells of the battery Kcl produced slight tetanus.

She is being treated with rest, fresh air, quinine and iron, and at present (April 1st) the disease appears to be running a fairly satisfactory course.—*Dr. A. James, Edinburgh Medical Journal.*

**PERMANGANATE OF POTASSIUM AS A URINARY TEST.**—At the meeting of the Hunterian Society, held February 25, 1891, Mr. F. R. Humphries read a paper on the reduction of permanganate of potassium by the urine, in which he stated (*British Medical Journal*, March 14, 1891) that, after testing the known organic and inorganic constituents normally present, he came to the conclusion that a phenol was the only one which could produce this effect. The phenol might be present in such a form as to admit of ready oxidation. Baumann had proved that phenol, besides being made in the intestine, was also formed during the decomposition of albumen. The reducing body corresponded in its diurnal variations with urea and the uncombined sulphates; it

was, therefore, certain that it was, like them, a product of the metabolism of the tissues. If the reducing body was a phenol compound, it ought, when retained, to produce cerebral and nerve effects. It was remarkable that the forms, degrees, and symptoms of carbolic acid poisoning bore the very closest resemblance to those of uremia, and that several of the most useful drugs in the latter condition were antidotes in the former. It was found that when the excretion of the reducing body was much diminished or increased, symptoms of uremia were generally present. One cubic centimeter of a five-per-cent solution of permanganate was diluted with four or five parts of water in a test-tube, and the urine rapidly run in from a pipette marked in cubic centimeters. The normal amount of the reducing body excreted in the twenty-four hours was found to be from seventeen to thirty-four grains, reckoned as permanganate, being highest in the first urine of the morning, in that passed four or five hours after a meal, and in fine warm weather. It was much increased in all febrile cases, except when marked cerebral symptoms were present; much diminished during a sick-headache, but increasing rapidly as it passed off. The author claimed to have discovered the presence of a powerful reducing body in the urine, whose daily history showed it to be a product of the metabolism of the tissues, whose reactions corresponded to a certain extent with those of a phenol, and whose suppression or excess corresponded closely with febrile cerebral symptoms, and with those of uremia.

Dr. W. Hunter said the views of Proust and Thudichum on urine pigments were foremost down to 1870; since then Jaffe had opened a new era. The coloring matter was no longer looked on as an independent body, but as a variety of pigments whose genetic relation to those of the bile and blood was established. Bilirubin was, without doubt, of the same nature as hematoidin; the relation was illustrated in old blood extravasations where blood was found in the center; then an area of hematoidin crystals, and outside the green color of biliverdin. The modifications of urobilin found in urine (MacMunn) were almost precisely the same as those found in the bile. Urinary pigments were extremely unstable, and readily passed from one body to another when exposed to the air to a few drops of acid. He viewed, then, with suspicion the results of such heroic methods as the use of phosphomolybdic acid, and relied more on the spectroscope and simple extraction with ether, etc. These methods led to the belief that all the pigment was derived from the blood, and was hence an index of changes in the body.

Dr. Lewis Jones had found a red body in febrile urine, giving a band at F, the junction of green and blue; this was urobilin, the uropittin, he supposed, of Dr. Thudichum. The color of normal urine was due to a yellow body, which gave no characteristic spectrum, and was unknown.—*Therapeutic Gazette*.

CONCERNING TUBERCULOSIS.—Dr. H. Kessel, of the Moabite Hospital, Berlin, traverses the statement of Dr. V. Lieberman, of Trieste, that tubercle bacilli are to be found in the blood of patients who have been injected with tuberculin. His own experiments included, eight hundred observations have been made, and three tubercle bacilli have been found. He wonders how it comes about that Lieberman in one hundred and forty-one investigations of the blood obtained a positive result in fifty-six cases, sometimes finding astonishing quantities of bacilli, and does not hesitate to say that dirty cover-glasses must have been used. From the overwhelming number of negative results in his researches, he is convinced that no entrance of tubercle bacilli into the blood takes place in those treated by tuberculin injections.

Drs. G. Troje and F. Tangl, of the Pathological Institute of Tübingen, give a preliminary communication of their investigations as to the anti-tuberculous operation of iodoform, and as to the forms of inoculation, tuberculosis resulting from injection of experimentally weakened tubercle bacilli. The questions they proposed to settle were three: (1) Whether outside the living organism iodoform can kill or render tubercle bacilli less virulent? (2) Whether iodoform injected along with tubercle bacilli into the animal body can diminish or prevent the development of local or general tuberculosis? (3) Whether the experimentally produced tuberculous abscesses of animals could be healed with iodoform in the same way as the cold abscesses of man?

How the iodoform, in vapor or powder or oil or emulsion with glycerine, was applied to the pure cultivations of bacilli is detailed *in extenso*, and they sum up the most important results of their researches as follows:

Iodoform is a real disinfection stuff for the bacilli. It possesses an undoubtedly poisonous power over them, although only shown after somewhat long contact of the drug with the bacilli. Till now this action could only be demonstrated outside the living animal body, and is true of the dry powder, the solution in oil, and the emulsion with glycerine. A new support is therefore given for the efficacious and therapeutical application of the drug in suitable cases.

Theoretically it seems to the authors to be of high interest that they have found in iodoform a means of easily placing tubercle bacilli into varying degrees of enfeeblement. In this way they have been able to show that Baumgarten is right in saying that giant-cell formation in tuberculous tissues depends upon a certain degree of enfeeblement in the bacilli causing the diseased process. Through weakening of the bacilli to a certain degree they have, for the first time, been able to show in rabbits the characteristic macro- and microscopic appearances of *perlsucht*, and thereby to give a further experimental support to the conception that the *perlsucht* of cattle is not caused by a peculiar kind of bacillus, but is only the well-known tubercle one weakened in the body of the bovines. As they have succeeded, by continuous inoculation of *perlsucht* into rabbits, in producing at length the picture of an ordinary inoculation-tuberculosis, they believe they have filled up a certain hiatus in the proofs hitherto offered that human and bovine tubercle are really identical. Furthermore, they have by their modes of debilitating the bacilli engendered in rabbits a disease which, by its chronic course, limitation to lungs, bowel, and lymph glands, and by its formation of isolated cavities in the lungs, resembles more human lung phthisis than any disease hitherto produced by inoculation. They also, by injections of bacilli weakened as described, can produce in the rabbit typical cold abscesses.—*Dr. F. Troup, in Edinburgh Medical Journal*.

ETHYLENE BROMIDE—A NEW REMEDY IN THE TREATMENT OF EPILEPSY.—Dr. J. Donath recommends ethylene bromide as a substitute for potassium bromide in the treatment of epilepsy. (*Pharmaceutische Post*, June 14, 1891.) The long-continued use of bromide of potassium entails a series of unpleasant after-effects, which are manifested in disturbed action of the skin, mucous membranes, and general nutritive processes, which are generally attributed to the action of the potassium; and Dr. Donath believes that in ethylene bromide he has found an organic combination in which the action of the bromine is accentuated and more readily and more powerfully exerted than in any bromine combination as yet known. He reports in detail in the *Therapeutische Monatshefte* for June, 1891, ten cases which have been under observation for several months, which show that the use of ethylene bromide so far reduces the convulsive attacks as to make them of more seldom occurrence and of such slight severity that even when they were not entirely prevented they were so reduced in intensity to exist simply in the form of more or less



slight muscular contractions without loss of consciousness.

Ethylene bromide occurs in the form of a light brownish-colored liquid, with an odor somewhat similar to that of chloroform, and a taste which is at first sweetish, and becomes afterward burning. At the freezing point it solidifies into a snow-white crystalline mass; it boils at 300° C. Its specific gravity is 2.163, and it contains 90.9 per cent of bromine. This fluid is insoluble in water, but readily mixes with alcohol and oil, and may be readily administered in the form of an emulsion. Dr. Donath recommends its administration in milk, his favorite formula being

Ethylene bromide	} āā..... ℥ xxxii;
Spirits of wine	
Oil of peppermint.....	

Of this, 5 to 15 drops may be administered two to three times daily, or it may be administered in gelatin capsules, in doses of three drops, mixed with six drops of oil of sweet almonds, of which two to four may be taken two or three times daily, and, according to the author, it is likewise suited for subcutaneous administration in oily solutions. The dose may be increased progressively until 70 drops is reached, the dose for adults two or three times daily, or 10 to 20 drops for children. It should be remembered that a minim contains a little more than two drops of the ethylene bromide.

Before proceeding to the therapeutic use of this substance Dr. Donath tested it on himself, and found that in ordinary therapeutic doses it produces no evident effects whatever in a healthy individual, and only in very large doses did it cause some nausea. Most of the cases of epilepsy in which he tested its therapeutic power were cases of long standing, which had for years been under the influence of potassium bromide. Twenty-one such cases were treated, but only notes of ten are referred to in detail, as the others were under observation too short a time to attempt to form reliable conclusions.

This substance should not be confounded with the bromide of ethyl, the anesthetic, which has the formula  $C_2H_5Br$ . Ethylene, or olefiant gas, has the formula  $C_2H_4$ , and originates when alcohol is heated with concentrated sulphuric acid. Ethylene unites with two atoms of bromine to form a chemical compound analogous to ethylene chloride ( $C_2H_4Cl_2$ ), which, under the name of Dutch liquid, was for some time used as an anesthetic.—*Therapeutic Gazette*.

**TWO CASES OF HEART-FAILURE.**—Two peculiar cases of heart-failure have come under my observation that seem worthy of mention.

The first one was that of a girl fifteen years of age, very intelligent, with no hysterical tendencies. Whenever she ate fish of any kind she would in a short time be attacked with extreme fainting and sensation of suffocation; the heart at such times beating slowly and with great feebleness. These symptoms would appear within one hour after eating, and sometimes almost immediately after the ingestion of fish. The amount of fish taken made no difference in the violence of the symptoms. Stimulants were given and speedily followed by relief, but sometimes the tendency to syncope lasted several hours. No other substance was known to produce the symptoms. On one occasion she was attacked when she had not been eating fish, when she went through with all the distressing symptoms following a meal of fish. I inquired carefully after every article she had tasted for dinner, and found nothing of a fish nature that she had taken. On collecting her thoughts she remembered that in fixing her bonnet just before dinner she used some fish glue and got some into her mouth, but swallowed none of it. This accounted for her syncope.

Another girl, aged about nineteen years, not accustomed to faint on any other occasion except when going into a room lighted with electric lights. She feels a peculiar sensation on entering the room, but may not faint until she returns home, when it will come on and last an hour or more. She never can enter the presence of an electric light with out feeling the heart-failure coming on. No other kind of bright light, however strong, has the same effect. *John M. Currier, M. D., Newport, Vt., in Medical and Surgical Reporter.*

**MERCURY FOR GLANDERS.**—Gold reports two cases of glanders cured by inunctions of mercurial ointment, twice a day for a month, the patient being kept at the point of salivation. The effect on the mouth was combated with chlorate of potash gargles, and on the body suppurating spots were treated by poulticing, incisions, washing out with solutions of perchloride of mercury, and dressed with iodoform gauze.

**ACCORDING** to B. Alexander, of Berlin, hypodermic injections of camphorated oil have a cumulative effect, causing, after the fifth injection, pains in the head. When used in diseases of the respiratory organs, in small doses, it has antipyretic effect. In heart diseases, where digitalis does not seem to be of further use, camphor injections will enable the action of digitalis to be resorted to again.—*Journal American Medical Association.*

# The American Practitioner and News

"NEC TENUI PENNÄ."

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H. A. COTTELL, M. D., } Editors.

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## A LITTLE FABLE.

Our esteemed contemporary, the Philadelphia Medical News, whose trenchant comments upon the doings of the recent meeting of the American Homeopathic Association our readers have already seen, indulges in the following bit of pleasantry at the expense of our brethren of the little pill persuasion. It is perhaps not so funny as it seems.

### A LITTLE FABLE.

Once upon a time there was a kind old lady that lived in a big country over the sea, and who raised a great many chickens. One fine morning the good old lady took her little grandson with her to see the chickens fed. The little boy thought it great fun, until they finally came upon an old hen that would not budge from her nest, but pecked at the grandmother most viciously. Then the old lady took her stick and drove the hen from the nest. Immediately the hen set up such a cackling, and screaming, and blustering of feathers, and flew at the grandmother so savagely, that the little boy was nearly frightened out of his wits. He had never heard such a noise. What a horrible thing it was, to be sure!

Grandma: Do not be frightened, my child, the hen is not dangerous. She has more feathers and noise than fight—hens do not bite, they only peck.

Boy: But what ails the hen, Grandma, and why does she make such an awful fuss?

Grandma: Nobody knows exactly what ails her, my boy; she is just an old settin' hen, that's all—I call her the old homeopathic hen.

Boy: What a name! What does "hommypatic" mean, Grandma?

Grandma: I am sure I don't know, and I guess nobody else knows. Perhaps it sounds like her cack-

ling. A stranger one day said she was a homeopathic hen.

Boy: But, Grandma, there is only one egg in the nest. Do hens sit on one egg?

Grandma: Homeopathic hens do.\* A great while ago this hen laid quite a number of eggs, and she sat on them a long time.

Boy: Did the eggs hatch out into chickens, Grandma?

Grandma: Not one of them, my boy. They were a sorry sort of eggs; according to the stranger-man, one was a "psora," or itch egg; another was marked "thirtieth dilution;" then there were "succussion" eggs, "high potency" eggs; "immateriality of disease" eggs; "smelling of medicine" eggs, and a lot more very, very curious eggs.

Boy: What fearful words, Grandma. What do they mean?

Grandma: Nobody could ever tell me.

Boy: What became of those eggs?

Grandma: After the old hen had sat on them for a long time, and they had begun to stink very bad, she herself kicked them out of the nest, and I had to hold my nose while I threw them away.

Boy: Why did they not hatch out, Grandma?

Grandma: Because they had no "tread" in them.

Boy: What is "tread," Grandma?

Grandma: It is a bit of fatherly kindness and help on the part of the rooster that makes the egg capable of hatching out into a chicken, and thus becoming of some good in the world.

Boy: What is the rooster's name, Grandma?

Grandma: Some call him "Science," but a better name is "Common Sense."

Boy: The one egg still left in the nest, Grandma, what is that for?

Grandma: That is the nest-egg, and we leave that so the hen may lay more eggs.

Boy: Will the hommypatic hen lay more eggs, Grandma?

Grandma: No, my boy. I told you she was just an old settin' hen, and settin' hens don't lay eggs.

Boy: If she will lay no more eggs, why don't you take this one away?

Grandma: Alas! it is also rotten.

Boy: Has this nest-egg any name, Grandma?

Grandma: It is called the *similia* egg.

Boy: What does that mean, Grandma?

Grandma: It has absolutely no meaning, that I could ever learn. The stranger-gentleman didn't explain, and we can not understand the language of hens, and so do not comprehend their own explanations.

Boy: If you take the simmily egg away, will the hommypatic hen still keep on settin' on nothing?

Grandma: O, yes, of course.

Boy: What a foolish hen! . . . If you should throw cold water on the hommypatic hen, Grandma, would she still keep on settin'?

Grandma: Ah, my child! she has had more cold water thrown on her than would drown twenty sensible hens. But she keeps right on. She gets very mad when you throw cold water on her, or poke her up; but if you don't do it, she would starve on her addled old egg. She likes to flutter herself she is a great martyr.

\*The only "certa" in the Master's teachings are the fundamental rule for the selection of the remedy, *similia similibus*, etc."—(R. E. Dudgeon, M. D., of London, Honorary President of the International Homeopathic Congress, on "Homeopathic Certainty and Doubt," quoted by Helmhuth as "the belief of the Convention." See N. E. Medical Gazette, August, p. 392.)



Boy: Why don't you kill her, Grandma?

*Hæc fabula docet*—much or little, according to who the reader is.

Be the moral of this fable what it may, we prophecy that this sterile hen will continue to spread herself over her nest of addled eggs so long as the public believe they are incubating and continue to bestow upon the sitter a full supply of food. The distinction between the quack and the true physician will never be sharply drawn until ignoramuses, cranks, and quacks be driven from the ranks of so-called regular medicine, and the public be so educated as to be able to tell the false from the true.

### Notes and Queries.

THE SEVENTEENTH ANNUAL SESSION OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will be held at the Pickwick Theater, Washington and Jefferson avenues, St. Louis, October 14, 15, 16, 1891. The programme is a valuable one, containing the names of many men eminent in medicine. The number of papers will be limited, so as to permit of the fullest and freest discussion of the various topics as presented.

The medical profession of St. Louis is well able to amuse and entertain as well as instruct. The visiting doctors, their wives, daughters, and friends, are promised by them a most hearty welcome. The whole day is devoted to science and the entire night relegated to social pleasures. Time spent in St. Louis seems only too short.

Ethical questions are referred to the Judicial Council without debate, and their decision is final. Other routine business is in the hands of appropriate committees, and much valuable time is saved to the Association. No threadbare subjects will be discussed.

Requirements for membership are the same as those for the American Medical Association.

Dr. C. H. Hughes, 500 North Jefferson Avenue, St. Louis, is the eminent President, and Dr. I. N. Love, Lindell and Grand Avenues, St. Louis, the cultured and courteous Chairman of the Committee of Arrangements. The programme is as follows:

The Toxic Effect of Tobacco Vapor; with Report of Cases. W. Carroll Chapman, M. D., Louisville, Ky.

The Management of Chronic Diseases. S. Baruch, M. D., New York, N. Y.

The Ethics of Curing Consumption and other Chronic Diseases. John Ashburton Cutter, M. D., New York, N. Y.

The Treatment of Typhoid Fever. Robert C. Kenner, M. D., Louisville Ky.

The Carbolates. William F. Waugh, M. D., Philadelphia, Pa.

On Degenerative Processes in the Spinal Cord, Consequent upon Constitutional Diseases. Hugo Summa, M. D., St. Louis, Mo.

Iliac Indigestion—Intestinal Dyspepsia—and its Treatment by Antiseptic Agents. Frank Woodbury, M. D., Philadelphia, Pa.

Influence of Graveyards on Public Health. J. W. Carhart, M. D., Lampasas, Texas.

Rheumatism and Gout in their Casual Relation to Eczema; their Management. A. H. Ohman-Dumesnil, M. D., St. Louis, Mo.

The Value of Epilation as a Dermato-Therapeutic Measure. Joseph Zeissler, M. D., Chicago, Ill.

Gradation of Lenses. Dudley S. Reynolds, M. D., Louisville, Ky.

The Influence of Alcohol on Vision. Francis Dowling, M. D., Cincinnati, O.

Tobacco and Insanity. Ludwig Bremer, M. D., St. Louis, Mo.

The Present Aspect of Cerebral Surgery. Landon Carter Gray, M. D., New York, N. Y.

Forensic Aspect of Bruises and Fractures in the Insane. J. G. Kiernan, M. D., Chicago, Ill.

Amputation of the Scrotum, with Report of a Case. B. Merrill Rickets, M. D., Cincinnati, Ohio.

Observation on Urethral Stricture. G. Frank Lydston, M. D., Chicago, Ill.

The Mechanical Element in Treatment of Compound Fracture. Warren B. Outten, M. D., St. Louis.

A Report of a Case of Retention of Urine caused by Multiple Urethral Calculi. J. V. Prewitt, M. D., West Point, Ky.

Some Observations on Rectal Surgery in Europe. Leon Straus, M. D., Louisville Ky.

A New Method of Diagnosing Obstruction in the Sigmoid Flexure. Jos. M. Mathews, M. D., Louisville, Ky.

Pathology and Surgical Treatment of the so-called Strumous Inguinal Lymphadenitis. L. T. Riesmeyer, M. D., St. Louis, Mo.

The Treatment of Gonorrhea. E. C. Underwood, M. D., Louisville, Ky.

Extirpation of the Thyroid, with Report of Case. Emory Lanphear, M. D., Kansas City, Mo.

Are Conservative Amputations always in the Interest of the Patient? Charles Truax, M. D., Chicago, Ill.

Sarcoma of the Dorso-Scapular Region—Operation—Recovery. George N. Lowe, M. D., Randall, Kansas.

Mouth Breathing. Eric E. Sattler, M. D., Cincinnati, O.

Empyema of the Superior Maxillary Antrum, with only Nasal Symptoms. Hal Foster, M. D., Kansas City, Mo.

Superior Remedy for Nasal Catarrh; Campho-Menthol. Seth S. Bishop, M. D., Chicago, Ill.

A Case of Reflex Aphonia; Demonstrated to be due to Pressure of the Middle Turbinate against the Septum Nasi. Hanau W. Loeb, M. D., St. Louis, Mo.

Importance of Recognizing a Temporary Rachitic Condition in Infants. John A. Larabee, M. D., Louisville, Ky.

A Pathological Study of Pelvic Inflammation in Women. Wm. Warren Potter, M. D., Buffalo, N. Y.

Observation on the Management of Uterine Tumors. Chas. A. L. Reed, M. D., Cincinnati, Ohio.

Complications Following Abdominal Section. Rufus B. Hall, M. D., Cincinnati, Ohio.

Obstetric Dispensaries; their Management. L. A. Berger, M. D., Kansas City, Mo.

Surgical Treatment of Peritonitis. A. V. L. Brokaw, M. D., St. Louis, Mo.

Temperature no Guide in Peritonitis. H. C. Dalton, M. D., St. Louis, Mo.

Some Monstrosities at and after Birth. David S. Booth, M. D., Belleville, Ill.

Oöphorectomy vs. Donothingism. Willis P. King, M. D., Kansas City, Mo.

A Successful Gastrostomy for Impermeable Stricture of the Cardiac End of the Esophagus; Subsequent Dilatation of the Strictures. Arch Dixon, M. D., Henderson, Ky.

The Nervous Equation of Pelvic Inflammation. Geo. F. Hulbert, M. D., St. Louis, Mo.

Hysterectomy for Cancer. J. M. Richmond, M. D., St. Joseph, Mo.

The Application of the Obstetrical Forceps. John Bartlett, M. D., Chicago, Ill.

Appendicitis. W. H. Link, M. D., Petersburg, Ind.

Phthisis: Beginnig its Treatment. Edward F. Wells, M. D., Chicago, Ill.

The Hydrotherapy in Typhoid Fever. H. H. Middlekamp, M. D., Warrenton, Mo.

Hystero-Epilepsy. Howell T. Perching, M. D., Denver, Colo.

Importance of Definite Strength in Mineral Waters. Geo. F. Hulbert, M. D., St. Louis, Mo.

The Time and Place for Stimulants. By Chas H. Hughes, M. D.

Regular classified programme will be issued and sent to members and the profession generally at an early date. Titles of papers must be sent to chairman of Committee of Arrangement before October 5, 1891.

E. S. M'KEE, M. D.,  
Secretary.

THE SEVENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.—There seems to be a general unanimity of opinion that the London meeting of the Seventh International Congress of Hygiene has been an unqualified success. There was a pleasant mixture of so-called popular and of scientific topics, and certainly no one could complain of any severe limitation of choice. Only those possessing the gift of ubiquity could have managed to do any thing like justice to the variety presented in the different sections of State Hygiene; Preventive Medicine; Infancy, Childhood, and School Life; Chemistry and Physics; Architecture in its relation to Hygiene; Engineering in its relation to Hygiene; State Hygiene; and, finally, of Demography. The professors who had, so to speak, the title rôle to support, played their parts to perfection. One of them, with substantial as well as ety-



mological accuracy, defined demography as "a method of drawing the public." But the more abstruse departments had also their lighter sides. The science of public health is, no doubt, only another name for an inquiry into the causes of disease, general and specific. But even epidemics, in virtue of their terrors, have fascination for many minds, while a more wholesome interest will find abundant material in following speculations and suggestions that minister to a better physique; in other words, to the greater capacity of the masses for enjoyment. At first sight there is something gruesome in the catalogue of perils against which it is the object of sanitary science to protect the community. The Prince of Wales, in his inaugural address, spoke the thoughts of many when he observed that "as one looked through the programme it was impossible not to feel distress, and even horror, at the multitude of dangers in the midst of which we have to live." But he gave the needed consolation when he added that the great majority of these risks may with due care be averted.

The proceedings were naturally concerned much less with what has been already done than with what remains to be achieved. Knowledge in the abstract was not the goal of effort, but knowledge that could practically help mankind. There would be little use in compiling statistics about diphtheria, if the comparison of data thus obtained did not help us to discover the cause of the scourge. In such cases the study of causes is the first step toward that best form of cure—prevention. As yet, the most eminent experts must be content to go on patiently and indefatigably in the road of inquiry, sustained by the hope that, in the end, the mystery will yield to the genius of statistical research. It would have been welcome news had Dr. Seaton announced that he and his fellow-laborers in this field had solved the problem; but he did the next best thing when he induced the Congress to pass a resolution calling on the European governments to set on foot a comprehensive inquiry. If the plan of international conferences needed justification, it would be found in the necessity for world-wide co-operation in tracking to their origin the more subtle shapes of infectious

maladies. India, that in so many other departments of human energy has served to enlighten the West, has been represented at the Congress, and we have no doubt that the attention paid to the Anglo-Indian observers will encourage many a young member of the medical department to make the most of the rare opportunities that his service in that cradle of epidemics gives him. The great continental specialists who graced the Congress with their presence, and, in many instances, enriched the records of the proceedings with their remarks, may be trusted to do all that the laboratory and the hospitals will permit. But the battle with disease is essentially a soldier's battle.

The discussion in the section of bacteriology as to the possibility of the transmission of tuberculosis to the human subject by the medium of meat or milk as articles of diet, was not, it must be owned, appetizing. But, taking it altogether, it was reassuring, since it showed, on the one hand, that the risk is far slighter than the professional panic-monger would have us believe; and, on the other hand, it suggested certain practical precautions. It is in the investigation of such subjects as this that the necessity of tempering the results of physiological research and experiment with due regard for the facts and conditions of everyday life becomes apparent. Professor Burdon-Sanderson, for instance, while recognizing that there is a certain degree of danger in the supply of tuberculous meat, added that, if to-morrow a law were passed forbidding its sale, it could not be put into force, because of the difficulty of obtaining inspectors with sufficient skill and discernment. The reflection has a moral that may be carried far beyond the sphere of State medicine. As Professor Bang, of Copenhagen, recommended, the proper thing to do is to discourage the consumption of under-cooked meat. When doctors differ, a very simple sanitary code is very often the best concordat.

Topics, we need hardly say, vastly more intelligible than those to which we have referred, and no whit less important, engaged the attention of several of the sections. The chemists, it is gratifying to hear, hold that the smoke nuisance is amenable to treatment, and

ask the authorities to address themselves practically to its abatement. It will, possibly, be a surprise to some, and a matter of regret to others, that the section of State Hygiene passed resolutions declaring that cremation is a rational and hygienic procedure that is especially called for where death occurs from contagious diseases, and urging the various governments to remove all legislative obstacles to the practice. To legalize is of course not necessarily to approve; but the considerations adduced by Sir Henry Thompson undoubtedly went far to show that other means of disposing of the dead, save burning, may frequently be the means of propagating disease. It may be hinted, however, that the decisions of the congress of Hygienists, like those of the congress of trades unionists, do not always express the mature and impartial view of the whole membership.

On the vexed question, whether under any circumstances and in any quantity alcohol is bad for people of ordinary constitutions, there was by no means unanimity. Moderation approaching abstinence was, indeed, generally commended; but, while Dr. Isambard Owen took up his parable boldly in favor of teetotalism as consistent with perfect health, others were found to plead that a little good wine or beer, or even spirits, taken regularly at meal-times, and always in modest quantities, tends to physical well-being as well as to comfort. Probably, in this conflict of authorities, the outer world will go on doing what it most likes. There is a sort of uncomplimentary concession to the weakness of the flesh in the theory put forward, that, as most of us come of ancestors that drank, we should be well advised not to revert rashly to a more innocent regimen.

Every thing in these days leads up to socialistic politics, and no one ought to be disappointed if, on such subjects as dinners to underfed children at elementary schools, the application of scientific principles failed to secure unanimity of belief. There was more thoroughness than wisdom in the suggestion that poor parents should be sternly prohibited by statute from allowing their sons and daughters to sleep in the same room with themselves, and that, if poverty prevented them from providing ample and decent accommodation, the

State should step in with the necessary allowance.

More cognate, perhaps, to the legitimate functions of the Congress were the striking reflections offered at an earlier sitting by Mr. Galton as to the law of population. There is certainly novelty in the suggestion that the population does not necessarily and indefinitely tend to increase in modern civilized societies. The question lies at the root of nearly all political and socialistic speculations of the time, and it is to be hoped that when next the experts in demography assemble they will be in a position to elucidate what is still obscure in this important branch of statistical information.—*Medical News*.

**EPIDEMIC TYPHOID FEVER AT WATERBURY, CONNECTICUT.**—The last annual report of the Connecticut Board of Health contains the history of an epidemic of typhoid fever in Waterbury, occurring in the midsummer of 1890. The special paper in the report, tracing the outbreak to "dairy typhoid," or to infection by typhoid-impregnated milk, was written by Dr. Herbert E. Smith, Professor of Chemistry in Yale Medical College. Dr. Smith was detailed to investigate a sudden outburst of fever in June, 1890, of about fifty cases in a period of twenty-three days, limited to thirty-five families within the town. Not much success has, in this country, attended investigations intended to prove the relations of milk to typhoid fever; but in this instance we are presented with proofs of these relations that appear to be irrefutable. Although milk-typhoid has undoubtedly occurred in this country more frequently than has been generally known, there have been not a few unexplained epidemics of fever whereof the chains of conditions and surroundings have been suspiciously similar to those discovered at Waterbury and at the Middlebury farm, whence the alleged infected milk was derived for the use of the families residing in one section of the town. The distinctly proven cases of milk-typhoid have been, in other countries, sufficiently frequent and destructive to show that it is a reality and a dangerous foe to human health and life. In 1881 Mr. Ernest Hart, the well-known editor of the



British Medical Journal and of the London Sanitary Record, read a paper before the International Medical Congress, in which he gave a brief account of not less than fifty outbreaks of fever, embracing over three thousand cases, that were caused by milk-infection. These epidemics had been the subjects of persistent and thorough investigation during a period of eight years or more prior to Mr. Hart's report. The greater number of these fifty epidemics were in England, and had been officially recognized and acknowledged. Since that time other cases of milk-infection have been reported, but their gravity has been materially subdued by sanitary precautions. The dairies of England have, in late years, been placed under a vigilant inspection, so that errors of construction about dairies and dangerous practices on the part of dairymen have been reduced to a minimum. In the present case of the Waterbury outbreak, the investigator made some few inquiries regarding its possible causation by the water supply and drainage system of the parts of the town affected, but his results were negative. In regard to the milk supply the reverse was the result, for he early found significant hints of an infected dairy which were abundantly confirmed as his inquiry progressed. As a starting-point, Dr. Smith felt that he had to contend with a far-reaching method of infection, for the reason that June is not one of the typhoid months, so to speak; in that region the most usual time for the appearance of cases of fever is in the early fall. He found that a certain dealer in milk supplied four fifths of the families living in two thirds of the houses where the disease occurred. This dealer probably served not more than four per cent of the townspeople with daily deliveries amounting to six hundred quarts. His milk was obtained chiefly from three farms, concerning two of which there was absolutely no typhoidal history. One farm, however, had had not less than three cases of fever, and this was a source of one quarter of the dealer's daily supply. It is probable that the milk from this dairy was contaminated both aerially and through the water used for the washing of cans. The sources of water on the farm were not in good sanitary condition, but a bacteriological exam-

ination made late in the month did not discover the specific bacillus of Eberth; the cow-yard and the milk-room presented conditions that were in several particulars favorable to the dissemination of infecting material or media.

At the time of Dr. Smith's visits to the farm he found the barn-yard very offensive from an accumulation of manure, which had not been removed for several weeks, owing to the farmer's illness during that time by typhoid fever; the yard was undrained and so situated as to hold ponded filth several inches in depth at its most depressed portions. The investigation failed to detect any gross contamination of the milk—the inquiry was begun too late to render this discovery probable—and it is not to be considered necessary to the making out of a strong anti-dairy argument, for, as Dr. Smith points out, it has been repeatedly shown that the specific contagium of typhoid fever, excreted in the stools, has ample powers of self-multiplication; and further, as Wolfhügel, Seitz, and Heim have demonstrated more recently, the article milk, whether sterilized or unsterilized, becomes an excellent culture medium for the bacillus typhosus. And it has been still further shown that, with a temperature not exceeding 55° F., the bacillus grows quite readily, and this was the temperature noted in the milk-room where the cans stood before leaving the dairy-farm. A pure water supply, above suspicion and amply protected from every form of sewage contamination, is a desideratum of the first moment, from the fact that the water used in cleansing the cans and other appurtenances is probably the readiest means of bringing the contagium from infected excreta into contact with the milk. Motives of policy, as well as of humanity, alike point the importance of having the purity of the milk and the cleanliness of all vessels used in its preparation and transportation to the consumer made as complete and perfect as possible. And it should be especially remembered in this connection that something more than an apparently pure water is required, for we may have a contaminated supply even from sources of gross excrementitious pollution without its yielding any evidence of impurity to our senses.

It is further held by experts, that in the bacteriological study of milk and of water it is not always possible to detect the Eberth's bacillus when a certain time has elapsed after the febrile outburst. Excrementitious contamination may be found at a late date, but to give the investigator the fullest and best opportunity for identifying the bacillus he should be called into the examination at the earliest practicable period of time. The author of the report closes with a special admonition as to the position of cess-pools, privies, etc., on dairy farms, saying that they "should be properly located, properly constructed, properly cared for, and their proper use should be insisted on, because of the direct dangers of the contamination of the milk by those whose duty it is to take care of it." The ordinary conduct of the majority of our dairy-farms ignores all probability, if not possibility, of domestic pollution, and a lesson might be read to dairymen from the Waterbury incident to show that three cases of fever, one of them fatal, may arise upon the dairy-farm itself concurrently with the fifty cases or more which visited the townspeople. The typhoidal dairy is dangerous to its own residents not less than to its customers.—*Journal American Medical Association*.

**TESTING FOR SUGAR.**—Hunkiarbeyendrian adds salol to the list of substances which impart to urine the property of reducing the oxides of copper, silver, and bismuth in alkaline solution. The urine of persons to whom salol has been administered furnishes, when tested with Fehling's solution, a precipitate of the red oxide of copper, the quantity varying with the amount of salol absorbed. If such urines contain at the same time sugar, the polariscopic test is also subject to error, since urines containing derivatives of salol polarize to the left; the results obtained are therefore too low.

To distinguish, in urine, sugar from the derivatives of salol, the following process is recommended: A tube of the capacity of fifteen cubic centimeters is half filled with urine previously treated with basic acetate of lead. To this is added five centigrams of hydrochlorate of phenyl-hydrazin and twenty centigrams

of sodium acetate. The liquid, which assumes a yellow color, is heated in the water-bath to 100° for half an hour, and then allowed to cool, when the precipitate formed is examined microscopically. If due to derivatives of salol, the precipitate is amorphous; if to sugar, it is composed of small, silky crystals of phenyl-glucosazone, which are at times grouped into tufts.

A more rapid process, which does not require the employment of the microscope, is the following: To 200 cubic centimeters of urine there is added one gram of sulphuric acid and about 50 cubic centimeters of ether free from alcohol. The mixture is shaken for several minutes, then allowed to stand awhile. The upper layer, which contains the derivatives of salol, is evaporated in a porcelain capsule, the residue thus obtained dissolved in a little water, and the solution tested with a few drops of a solution of the perchloride or persulphate of iron. A violet coloration is produced in the presence of derivatives of salol. The lower layer of liquid is treated with basic acetate of lead, and, after filtration, tested for sugar by the ordinary methods. Non-saccharine urines containing derivatives of salol, when treated in this manner, have no action on metallic oxides or on the rays of polarized light.

Jollis considers that a sharp distinction exists between glycotie and diabetic urines. The former contain but mere traces of sugar, about 0.4–0.5 per cent, and otherwise are not characterized by abnormal chemical and physical properties. The diabetic urines, on the other hand, have a high density, a pale-yellow color, a less quantity of uric acid than normal urine, and contain acetone, or aceto-acetic acid, or acetic acid. Sugar usually occurs in them in considerable quantities, although this is not always the case. A new method, namely, to paint a visiting card first with copper sulphate solution, and after drying to apply the suspected urine with a match, dry and heat, which has recently been proposed by Von Becker, is considered wholly untrustworthy by the author. Trommer's method and Seegen's modification of the same are also considered valueless by the author. Böttger's bismuth re-agent and the



phenyl-hydrazine test are found by him trustworthy. With Böttger's bismuth re-agent, 0.08 per cent of sugar may be detected, and if the urine be first boiled with a solution of sodium chloride the delicacy is heightened, 0.01 per cent being then detectable. At least fifty cubic centimeters of urine must be employed to five cubic centimeters of Nylander's re-agent, and should not be boiled for more than two minutes. The presence of such substances as rhubarb, kairine, oil of turpentine, quinine, arsenious and salicylic acids, sulphur, mercury salts, and iodides should be avoided. In the case of considerable quantities of uric acid, it is to be observed that the brown coloration produced by it remains constant, whereas that produced by the presence of sugar becomes continually darker. The phenyl-hydrazine test enables 0.015–0.038 per cent of sugar to be detected, the delicacy being the greater the less the amount of reducible substances present. At the same time crystals, very similar to those of phenyl-glucosazone, are formed with glycuronic acid. The latter are, however, not so fine, and have not the same striated arrangement as those of phenyl-glucosazone.

Hirschl considers the phenyl hydrazine test a perfectly trustworthy one. If the urine gives typical needles of phenyl-glucosazone, it certainly contains glucose. It is essential, however, that the test-tube should be allowed to remain one hour in the water-bath. If this is done, the precipitate caused by glycuronic acid, if this substance is present, is wholly amorphous and easily distinguishable from phenyl-glucosazone. Levulose can not be distinguished from dextrose by this test, but only by the polarimeter. Lactose, which has been found in the urine of nursing women, furnishes needle-shaped crystals, which are about ten times the width of those of phenyl-glucosazone, and do not show the same orderly arrangement. Their melting point is 200°. Maltose gives a precipitate which occurs in yellow tables, melting at 82°.—*Boston Medical and Surgical Journal*.

FOURTEENTH ANNUAL MEETING OF THE AMERICAN SOCIETY OF MICROSCOPISTS, NOW THE AMERICAN MICROSCOPICAL SOCIETY.—The Society convened according to announcement,

on Tuesday, August 11, 1891, at 10 o'clock A. M. in the Preparatory Department of the Columbian University. After prayer by Rev. R. S. L. Wood, the address of welcome was delivered by Dr. J. S. Billings, F. R. M. S., of the Surgeon General's Office, U. S. A., followed by remarks by Dr. Thomas Taylor, President of the Washington Microscopical Society. These were responded to by President F. L. James, of St. Louis, after which the Society proceeded to the regular course of business, and so continued during the regular sessions until final adjournment on Friday afternoon, August 14th. During the sessions, the following papers were presented:

L. D. McIntosh—The portable lime light.

Prof. M. D. Ewell—A new form of graphological microscope.

Prof. M. D. Ewell—Standard glass and speculum metal centimeters.

Dr. James M. Flint—Apparatus for public and class exhibition of microscopical objects.

Wm. A. Rogers—The relations between a mikron and a wave length of sodium light.

Dr. J. Melvin Lamb—The microscope in government work.

Dr. Wm. C. Krauss—The microscope as a factor in diagnosis, prognosis, and treatment of morbid new growths.

Dr. Veranus A. Moore—Apparatus for holding cover-glasses when staining.

Dr. Veranus A. Moore—Observations on staining the flagellæ of motile bacteria.

Miss Vida A. Lathom—A brief account of the microscopical anatomy of a case of chrome lead poisoning.

Miss V. A. Latham—The use of stains, especially with reference to their value for differential diagnosis.

Prof. Wm. H. Seaman—The phosphorescent organs of fire-flies.

Dr. Lucien Howe—Floating particles in the eye a source of error in microscopical observation.

Prof. Simon H. Gage—Notes on the fixation of serial sections, and the collodion method in histology.

Prof. Simon H. and Susannah P. Gage—Comparison of the epithelium of the mouth in necturus and diemycetelus.

Simon H. Gage—Preparation of the fibrin filaments of blood and lymph, and of the oxy-hemoglobin crystals of necturus.

John Michels—The microscopical examination of Pork by the U. S. Government.

J. M. Stelman—On the nervous system of a fresh-water sponge.

J. M. Stedman—The killing of invertebrata in an expanded condition.

Dr. Lucien Howe—The mechanical stage used as a micrometer.

E. H. Griffith—New accessories made by additions to the Griffith Focus Indicator, etc.

Robert Moody—The arrangement of the muscular layers of the intestines of the cat at the junction of the large and small intestine.

Edward Bausch—A new microscope.

Dr. T. Taylor—A new revolving stage for exhibiting a large number of objects.

Dr. T. Taylor—An improved method of detecting lard adulterations.

Dr. Lyman Deck—A heliostat from a common clock works.

E. H. Griffith—Three new accessories for the microscope.

Henry L. Tolman—Hints on expert testimony.

Forty-two new members were elected.

The address of the President, Dr. Frank L. James, of St. Louis, Mo., was delivered on Tuesday evening, August 11th, at 8 o'clock, and was listened to with great attention by a large and appreciative audience. Subject, "The Microscope in the Investigation of Scorches and Burns on Textile Fabrics."

There was no working session as heretofore, it being believed that an inspection and explanation of the microscopic work done in the various departments of the government would be more instructive, interesting, and acceptable to our members.

The report of the Treasurer shows the Society to be in satisfactory financial condition. At the opening of this meeting there was \$276.99 on hand, and all debts paid. It may be stated however, that the Society needs the dues of every member—money is required to carry on the work of the Society, and the more that is available for the publication of the annual volume, the better the volume can be made—

better for each member, and more to the credit of the Society. The volume will be issued at the earliest possible date, also a circular announcing the particulars and place of the next meeting.

The officers elected for the ensuing year are:

President, Prof. M. D. Ewell, of Chicago; Vice-Presidents, Dr. Robt. Reyburn, of Washington, and Dr. R. J. Nunn, of Savannah, Georgia; Secretary, Dr. W. H. Seaman, of Washington; Treasurer, C. C. Mellor, of Pittsburgh, Pa. Executive Committee, Dr. J. A. Miller, of Buffalo, N. Y.; Prof. E. W. Claypole, of Akron, O.; Dr. J. M. Lamb, of Washington, D. C.

It is difficult for the Secretary of the Society to find out in our great country the names of all those, so numerous, who are interested in the microscope, and who would be likely to become members of the Society if its character and work are made known to them. It is therefore particularly desired that everyone who knows and is favorably disposed toward the Society will make known to the Secretary the name and address of anyone who may be induced to become a member, so that the Secretary can send them the circulars, etc., published from time to time by the Society, and that they may in this way become acquainted with it and be induced to join it.

Blank applications for membership may be obtained by addressing the Secretary, Dr. W. H. Seaman, 1414 Eleventh Street Washington, D. C. The Admission Fee is \$3.00, the annual dues \$2.00 payable in advance. This amount (\$5.00) may be forwarded with the application.

WM. H. SEAMAN,  
*Secretary.*

ORTHOPEDIC SURGERY AS A SPECIALTY.—(A. B. Judson, M. D., New York.) The president's address, delivered before the American Orthopedic Association at Washington, D. C., September 22, 1891 (Abstract):

A flourishing medical society sometimes divides into sections. It is an involuntary process, or at least one to which the members are forced by the necessity of thoroughly accomplishing the objects of the society. The process may be called an analysis. In the present instance, however, if I understand the organ-



ization of the Congress of American Physicians and Surgeons, we have a synthesis. A number of societies voluntarily combine to secure ends which were not contemplated at the beginning of each. A division of labor having been made, according to which each society has its special work to do, it is proper and useful for the societies to meet together for co-operation. Let us therefore briefly consider some of the salient features which mark our specialty of orthopedic surgery. A better knowledge of ourselves will put us in more quick relation with other workers, both general and special, and enable us better to do our humble part in the grand plan.

In common with other specialists we occasionally hear that we are limited in the possible range of our achievements. The limitation is, however, entirely voluntary, and the work within these limits is practically inexhaustible. If we were not so busy, we might perchance be troubled because we are not always and exactly understood. The sign before an orthopedic hospital in New York is supposed by some of the passers-by to indicate a homeopathic institution. I am probably not alone in having been asked to perform the minor surgical operations of the chiroprapist. Many, even among the learned, suppose the latter part of our name is derived from the Latin word for *foot*, instead of from the Greek for *child*. We are also confounded in the minds of some with the instrument-makers. I mention these things in passing without a serious thought. If they exist, like morning mist they will pass away.

It is well, however, to recognize the fact that our practice is comparatively lacking in popular qualities. We have no critical, capital, or brilliant operations. What of brilliancy is there in keeping a limb in such an attitude that the weight of the body in locomotion shall be a favorable instead of an unfavorable agent until the natural growth of the member results in comparative symmetry; or in controlling the environment of the diseased joint and the patient, so that the natural processes of recovery and repair shall have their triumph while the limb is daily growing in symmetry and ability with the growing child? This is not bold surgery, but there is great pleasure in

watching and reverently assisting these constantly recurring natural miracles. And will any of us forget the delightful friendships made among our little patients, their pretty bashfulness, their ready confidence, their irrepressible cheerfulness, their graceful acceptance of what is, alas! inevitable? The combination in them of childish and heroic qualities is a daily wonder. To watch them at play is like a dream in which the birds and wild-flowers are enacting a tragedy and improving the precepts of Stoic philosophy.

Our practice is not only lacking in brilliant achievements, but it is also uninviting, because as a rule our patients do not make absolute recoveries. There is always, or nearly always, a residuum of disability and deformity, and in this is to be found perhaps one reason why our specialty has existence; for, what general practitioner would lightly assume the care of a case so exceptional in his practice and so momentous as those which fall into our specialty?

The why and the wherefore of specialties in general, and ours in particular, are questions of interest. Some will say that we have a natural aptitude for mechanics, an inherited preference for slow and sure methods compared with those that are quick and uncertain, or an inborn reverence for what is physically demonstrable. These personal characteristics may explain why some of us are orthopedists; but I believe the reason why our specialty exists and thrives is to be found in the desire of the public, the final arbiter, that experts should be invited to bear the responsibility of orthopedic cases.

One very attractive feature of orthopedic practice, is its *reality*—for want of a better word. It is especially the domain of physical demonstration, where the acceptance of pathological doctrine as well as therapeutic precept must be preceded by absolute proof. Here subjective symptoms are forgotten in the presence of objective signs. The data for diagnosis are visible, palpable, and measurable. Treatment is by forces whose action is nicely directed, increased, diminished, and accurately measured. The very weight of the body is duly considered in trauma and therapeutics, and

finally the results of treatment are recorded in degrees of a circle and in fractions of an inch. Dealing thus, as we do, with physical realities, it is well for us to keep our eyes open to the moral verities also, which no less form part of the tissue of our daily professional work. Let us remember that diligence is the price of success, and that the only desirable success is that which is reached by the rejection of error and the loyal recognition of truth.

Since our last meeting there has occurred the death of one of our corresponding members, whose hostility to error might in all friendly criticism be called intemperate, one whose diligence and devotion to the interests of his patients make him an exemplar worthy of our affectionate remembrance. But I will not trespass on the subject of the first paper of our session, which is by Dr. A. J. Steele, of St. Louis, on the orthopedic work of the late Mr. Thomas, of Liverpool.

**HOW IS TUBERCULOSIS ACQUIRED.**—Dr. J. A. Jeffries (Boston Medical and Surgical Journal), after an exhaustive discussion of this question, arrives at the following conclusions:

It is clear that a certain amount of direct inoculation occurs.

It is highly probable that a larger amount of indirect inoculation takes place, as in skin tuberculosis, scrofula. Of this I have adduced no evidence.

Evidence is not in favor of flesh, after passing inspection, being a factor of any import.

Milk is clearly a source of danger, though judging from the data at large not a considerable one.

Indirect infection is probably the chief mode of infection, the bacilli entering through the lungs, the skin, and the alimentary tract, with but few exceptions.

The application of these conclusions is very clear, the inspection of food should be kept up as at present. People keeping private cows should be taught to be cautious of those which cough, and milkers' herds should be watched. To offset indirect infection the State should see to it that the rooms occupied by phthisical patients are properly cleansed. At the time of the millennium people may always cough on

handkerchiefs, keep their hands free from sputa, and always spit into improved cups, rather than on the floor; but at present they will not. The wealthy, who have more or less followed these rules for a long time, are relatively exempt from tuberculosis.

The one sure and ready way to kill tubercle bacillus is to cook it hard for at least fifteen minutes; anti-septics are not safe in the people's hands. All infected clothing should be boiled before handling, not tucked away in a bag, then shaken out, counted and washed. Every thing coughed up should be spit into special cups, and thoroughly steamed before emptying and washing. Patients should not cough all over the room, but hold a handkerchief before the mouth. All rooms liable to infection should be carefully cleaned, especially the floors, furniture, and first six feet of the walls. For this we must rely on washing, outdoor beating and dusting, and anti-septic solutions. The best antiseptic is carbolic acid, the stronger the better (never less than one per cent), applied long enough to soak in thoroughly.

At some future time people may wake up to the conditions of the case and demand walls and floors both smooth and washable, and the banishment of the dust traps called modern furniture, provided they do not demand a certain degree of isolation of the phthisical and the systematic destruction of all tuberculous cattle.

**THE INTER-CONTINENTAL AMERICAN MEDICAL CONGRESS.**—The Committee on Permanent Organization of the Inter-Continental American Medical Congress will meet at the Lindell Hotel, St. Louis, Mo., October 14, 1891.

It is intended at this meeting to (1) adopt constitution; (2) elect permanent officers, domestic and foreign; (3) select time and place of meeting.

Members of the Auxiliary Committees of the different States are invited to be present.

CHARLES A. L. REED, M. D.,  
Chairman.

DR. J. REED CONRAD, Chief of Chest Clinic in the Philadelphia Polyclinic, died of pneumonia, August 12, 1891, at his residence on Twenty-second Street, in Philadelphia, at the age of thirty-four.



# THE AMERICAN PRACTITIONER AND NEWS

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### A CASE OF COMPOUND COMMINUTED FRACTURE OF THE TIBIA,\*

With Dislocation of the Fibula Upward.

BY STEELE BAILEY, M. D.

Permit me to relate, briefly, a recent experience in practical surgery, one which gave me some concern, and which, I trust, will instruct as well as interest you. The case was one of compound comminuted fracture of the tibia, complicated by a dislocation of the fibula upward. In the literature of surgery I have failed to find a case reported parallel to this, which came under the writer's care in the summer of 1889. It was August when I was summoned to a man, living ten miles from my village, who it was said had a broken leg from the kick of a runaway horse. Six hours had elapsed after the accident before I saw him, when I learned that the freshly-shod colt was hitched to a road-cart, and becoming frightened began a violent kicking, one of the blows of which had struck the shaft of the right tibia in its upper third, two and a half inches below the patella, throwing the driver from his seat and breaking his leg—a fact which was painfully apparent when he attempted to get upon his feet.

Upon examination, under anesthesia, I discovered a horizontal wound of the skin, two inches in length, and an oblique fracture of the tibia, the degrees of the obliquity seeming

to be endless; it was dentate, the surface of the bone being studded with irregularities and interlocking so as to interfere with the reduction of the displaced fragments. The hemorrhage from the wound had been very copious, and was still oozing freely, washing away the comminuted particles which were broken off from either fragment. I announced my diagnosis, and the exceeding gravity of the case was freely explained, telling the friends that, were it merely one of simple fracture, the ends of the broken bones would be put in perfect apposition and there retained, while nature, barring accident, in a short period would accomplish the work of reparation; but that in this instance we had an open wound, a comminution of the bone near a very important joint, and all the skill we possessed, with most excellent nursing, would be required to fetch him through safely. We saw the wound was too extensive to attempt hermetical sealing; that in spite of antiseptic measures we would have a deal of suppuration, with a prospect of septicemia, which really did occur in the fourth week of the treatment, the weather being very hot, the average temperature of August being about 90° F.

Muscles, we are told, are endowed with the property of contraction, and unless this is counteracted the fragments will glide by each other, thereby shortening the limb, with more or less pain and inflammation in the surrounding tissues, and with this symptom we had considerable difficulty, more of which I may speak later on. The worst forms of compound fractures are produced by direct violence, as in kicks from a horse. In this instance we had, added to the compound, a comminution of the bone with laceration and bruising of the soft parts. Amputation would have been entertained by the surgery of forty years ago, but this fellow being

\*Read before the Central Kentucky Medical Association, at Harrodsburg, July 17, 1891.

in excellent health we thought it proper to try to save the limb. Reduction was made by extension and counter-extension; the fragments were placed in the closest apposition possible for repair, and a long roller of cotton was applied from the toes to a distance above the patella, with sand-bags placed on either side of the limb for the support of the parts. The wound was dressed antiseptically, daily, by irrigation with bichloride solution (1 to 5,000), which was found less irritating than the carbolic acid. Loose spiculæ were removed as they appeared from time to time, the fragments were kept in the best position possible, and this treatment was intended to be carried out for the first ten days, the object being the safety and comfort of the patient, the subsidence of heat, of pain, and of swelling. As every thing seemingly was progressing favorably, on the tenth day I made application of a permanent dressing of plaster of Paris, leaving in it, over the seat of the wound, a large fenestra for inspection, and through which the dressings could go on.

The future treatment of the case comprised those general principles as laid down in the most recent essays on wounds and fractures, concerning which I need not go into detail, as with them you are perfectly familiar. In spite of every antiseptic precaution suppuration continued freely; the man began to fail in health, confinement was irksome; he was restless, sleep was fitful except when opiates were given. In the fourth week there was a slight rise of temperature daily; bluish black spots were extending along the shaft of the tibia. Evidently he was suffering a moderate septicemia, with an extending necrosis, the fracture being a longitudinal or split one in which ravages were greater than were at first supposed would be the case. The process of repair was hindered by the presence of dead bone, and the chief clinical interest in the case was in determining the proper time for its removal. Union is not by any means always prevented by these sequestra between the fragments, but in many cases it is weak and imperfect while the sequestrum remains, and becomes solid only when the offending body is removed. I explained the necessity and insisted that the dead fragments should be removed, that the new traumatism

would set up reparative activity and healing of the wound would take place. To all of which good advice he turned a deaf ear, saying he would take the responsibility. We gave him re-constructives and a building-up dietary. After employing two of the plaster apparatuses, at the end of the seventh week we determined to get him out of his bed and into the fresh air. The limb was green, we knew, and still discharging an ichorous pus, also that there was some danger of bending or breaking from the weight of the body or from blows or falls, which is the case at any period till the new bone has acquired perfect solidity. His physical state actually required a change; he had had a taste of septicemia, and to lie abed longer would necessitate an amputation, with a possible loss of life. So, if he escaped Scylla he would fall upon Charybdis.

In the beginning of treatment when the diagnosis was made, which was announced after close examination, and in subsequent frequent inspections of the limb, there was seen no sign of dislocation of either the knee-joint or of the fibula. Dislocation of this latter bone, we know, is one of the rare events witnessed in surgery, and when seen, either in its early or remote occurrence, it is so palpable that a blind man, though he be a fool, if he would but put a finger upon it, could not be mistaken in the diagnosis. Here, in the tenth week, was seen, however, a dislocation upward of this bone. The question then arose, how and when did it take place? Not at the outset of the trouble I was most confident. If not then, at what other period could it have occurred? I had recourse to the books, but from them could get no answer.

The wound from the shoe's cork had healed, but there were openings at two other points further along the shaft of the tibia which were discharging pus freely from necrosed bone. The broken fragments apparently had knitted kindly. Then why did the head of the fibula slip upward? I think the following to be reasonable logic: That as there was a shortening of the leg of five eighths of an inch necessitated by the coming together of the two fragments of the tibia, the fibula may have been or was shocked (for the sake of argument)



by the original blow, and the daily irrigations given to the parts for weeks and weeks together, with the pus diffusing itself through the surrounding structures, soddening them as it were, so as to relax the ligaments of the fibula, which connect it with the tibia, this little bone, placed between the devil and the deep blue sea, either had to break or to bend or to be drawn out of its position, and it chose the dilemma of dislocation. In fact, it was absolutely impossible for the fragments of the tibia to heal without this event occurring. Relaxation occurring as it did, the biceps muscle, like a strong cord, by gradually pulling day after day under the cover of the dressings, produced the dislocation and likely assisted in the shortening, for muscular contraction is the special agent of shortening. The fibula does not enter into the formation of the knee-joint, and when dislocated, which is a rarity, and unreduced, it readily adapts itself to its new position. There is no interference with the functions of the knee-joint. Of course there is some deformity, which was more apparent in this instance, partly from the atrophy of the limb, which is the consequence of prolonged suppuration, and partly from the nature of the displacement, which was upward, and when found with an open wound and comminuted fracture, as this paper has imperfectly attempted to describe, makes it an interesting case, and, I believe, one unique in the annals of surgery.

But, be this as it may, it is the medico-legal aspect which attaches most interest to this case.

It was not to the treatment of the fracture that umbrage was taken. The result was most excellent, even brilliant, circumstances taken into consideration. There was only a shortening of five eighths of an inch, with strength equal to the opposite leg. There is some bending produced by the weight of the body when upon crutches, or to riding on horseback with the foot in the stirrup, or placing the foot upon the ground when the fracture was green. It was to the esthetics of the limb from the inability of the surgeon to reduce the dislocation that the patient believed he ought to have reparation. Its beauty was marred merely, nothing more, so he sought the courts. There wasn't a physician in all the region around about who

harbored a doubt in regard to the matter. The profession came with alacrity, bravely, fearlessly, for it was a common cause in which every doctor was interested. When the case was submitted to the twelve it took just three minutes to find for the defendant.

It is to be hoped the discrowned plaintiff will share with Father Grimes the well-known epitaph of that historic gentleman.

From a scientific as well as from a medico-legal aspect, which unwittingly and unwillingly became attached to it, this case was interesting, and a report was due this Society, and especially to those members who took a personal hand in the matter, and to whom I shall remain ever grateful.

STANFORD, K. Y.

## OBSTETRICS AND GYNECOLOGY.

BY E. S. M'KEE, M. D.

Obstetrics and gynecology are quite well represented in the Report of the Missouri State Medical Society, which is just at hand. This very neat and highly valuable volume contains Phlegmasia Alba Dolens, by L. I. Matthews, of Carthage; Laceration of the Perineum, Charles W. Adams, Kansas City; The Uterus, Frank A. Glasgow, St. Louis; The Direct Treatment of Diseases of the Tubes and Ovaries, A. V. L. Brokaw, St. Louis; Two Interesting Cases of Abdominal Surgery, C. E. Ewin, Independence; Some Practical Points in Abdominal Surgery, John H. McIntyre, St. Louis; Malignant Disease of the Uterus, Its Diagnosis and Management, Andrew L. Fulton, Kansas City.

Phlegmasia alba dolens is considered by Matthews to have something back of its local and general phenomena—some other grave pathological condition—and it is of more importance to recognize this fact in the management of these cases than the marked local symptoms exhibited, as pain, swelling of the limbs, and the fever that characterizes the disease. If septic intoxication is present the source of the trouble should be found and removed if possible. If septicemia or septico-pyemia exists the best means at our command will be required. The pain in the limbs can

be relieved by opium and anodyne liniments; fever by the usual remedies, and for support to the disabled and swollen limbs, smooth and well adjusted bandages are of great value. As near absolute quiet as possible should be enjoined upon the patient. He reported three cases, one of which was interesting from the fact that no septic, cellular, or other localized trouble could be observed, and the onset of the disease could only be accounted for by the too early getting up or undue exercise. Another interesting feature was the formation of a blood clot in the pulmonary artery, which produced the acute dyspnea and the distressing symptoms witnessed; the weak, rapid, and tumultuous action of the heart; the struggling for breath and the condition of almost fatal syncope. Granting that there was an embolus or thrombus in the pulmonary artery, the most wonderful feature of the case is that the patient recovered, for these cases die with but few exceptions.

The uterus, or rather the various operations on it, is discussed by Dr. Glasgow. The literature referring to the uterus receives attention, also Alexander's operation and fixation of the uterus. Hysterectomy for fibroids he considers an operation firmly established, and is now justifiable in many cases where it could not have been recommended several years ago. He thinks that in a few years the high amputation will be the exception and total extirpation the rule. The study of the effect of the removal of the uterus and appendages has been carried on more extensively than heretofore. The weight of opinion seems to be that the removal of the uterus has a more depressing effect on the mind than the loss of the ovaries. In fact ovariectomy has very little effect on woman's nature. Many are beginning to doubt that the presence of menstruation is sufficient cause for the postponement of an operation, a few even contending that it is the best time to operate. Pregnancy no longer offers a barrier to abdominal operations, as patients are found to do very well under these circumstances.

Some practical points in abdominal surgery were handled in a pointed, practical way by McIntyre. He thought that he who essayed

to do abdominal and pelvic surgery should be so fitted by previous observations and training that when he comes into "action" he will be "ready for any thing and surprised at nothing." He uses but little morphia, as it tends to lock up secretions and prevent the elimination of morbid material. The doctor much prefers bichloride of methylene in a Junker's inhaler as an anesthetic.

A Report of Ten Selected Cases of Laparotomy, with Remarks, was the title of a paper read by Dr. J. S. McIntyre, of St. Louis, before the Washington meeting of the American Medical Association. These ten cases were selected from a large number, and were chosen for their interest, instruction, and variety. Two were the Battey-Tait operation, and in both there was no return of the menstrual flow, though the sexual function remained as before. The last and most interesting case of all was the removal of an edematous fibroma of dimensions enormous, a very good photograph of the patient before operating being shown. Adhesions were found almost everywhere, the most difficult to manage being those attached to the liver and diaphragm. At the time of the detachment of the attachments to the diaphragm the patient ceased breathing, sank very rapidly, and it was thought she must die on the table; but she rallied under appropriate treatment. The case was manifestly one for drainage, but on account of the vast expanse of lax abdominal tissue he did not believe the serum would gravitate into Douglas' pouch sufficiently, and decided to defer drainage till necessary. Forty-eight hours after the operation the temperature reached 103.5°, a few of the ventral sutures were removed and the abdomen flushed out with hot distilled water. Many blood clots and much serum were removed, and the temperature fell to 101° within six hours. She died of septicemia the fifth day after operation. He regrets that he did not resort again to flushing out the abdomen, as it seemed to improve her so much. Drainage in this case, though tried later, did but little good. Keith removed an edematous myoma weighing 42 pounds. Tait a uterine myoma weighing 68 pounds. This woman's weight was, before the operation, 199½ pounds,



after, 106 pounds; leaving a tumor removed weighing 93½ pounds, which he believes to be the largest reported of the solid variety. The doctor operates antiseptically. Bleeding points are ligated with fine Japanese cable silk. The pedicle is always ligated and pocketed. The ventral wound is closed with silk-worm gut, threaded upon two long veterinary needles, passed from within outward, always inclosing the peritoneum. He considers this the ideal suture, not only for the ventral wound, but also for the operations for lacerated cervix and peritoneum. For anesthesia the doctor uses exclusively the bichloride of methylene in a Junker's inhaler; and now, with an experience of its use in over three hundred operations of various kinds, he has not infrequently seen nausea, but vomiting only five or six times. When in doubt he always drains, and prefers Keith's glass tube over all others. He uses but little opium or morphia on account of its locking up the secretions; but in case of pain uses antikamnia with happiest effects. He had much praise for the Staffordshire knot.

**Infection Through the Drainage-tube** was the subject of a paper by Hunter Robb, M. D., and Albert A. Ghiskey, M. D., of the Johns Hopkins Hospital. In this series of sixteen consecutive cases of celiotomy no antiseptic drugs were employed in the drainage-tube or any of its dressings, but a thoroughly antiseptic field was maintained. The authors are so convinced of the great danger of infection through the drainage-tube that they have made a careful bacteriological analysis in order to show how far it is possible to maintain a thoroughly antiseptic wound, and under what circumstances infection sometimes takes place. After relating the cases in detail they gave a summary as follows:

In nine cases the cultures were without exception negative; in six cases a coccus was found growing after the fashion of the staphylococcus pyogenes albus, and in only one was found the staphylococcus pyogenes aureus. These results would lead to the supposition that the staphylococcus pyogenes albus is not so virulent an organism as the staphylococcus pyogenes aureus, and that a septic condition results, as would be expected in cases where

the staphylococcus pyogenes aureus is found. To witness such results is to be convinced.

As the drainage-tube is thus a source of infection, it is believed that it explains the cause of death in many instances where the patient has died of sepsis on the third or fourth day after operation; but the danger of infection can be reduced to a minimum by the thorough use of asepsis, which saves many lives.

These bacteriological experiments have conclusively shown how difficult it is to be thoroughly aseptic, and yet how important practically it is to maintain an aseptic condition. The technique of the drainage-tube is second only in importance to the operation itself, and we believe, as previously stated, that the opinion which many operators hold concerning the drainage-tube is due to their neglect in carrying out the aseptic technique necessary to prevent infection.

**Menstruating Nurses.** (The Nightingale.) The question whether menstruation should be regarded as disqualifying a woman for surgical nursing is discussed by the journal mentioned. Some two years ago a Chicago surgeon made the suggestion that the menstrual discharge rendered the nurse infective and unfitted her for service in obstetrical cases, and she should be excluded from such work. More recently a New York surgeon substantiated this inference in the presence of a large class, by saying that it was an unwritten law in his practice to exclude menstruating nurses from all major operations.

In arguing against this "unwritten law," which for many reasons must be inoperative, while it is true that the vagina contains bacteria, and that the menstrual blood becomes disintegrated and rapidly offensive, the same is true of perspiration and other excretions, and it would be as rational to exclude every perspiring man from the operating room as to exclude every menstruating woman. Attention is called to the fact that if curetting and other operations can be performed upon the patient during menstruation with safety, it proves the surgical innocuousness of the menstrual discharge.

Prof. Goodell, when questioned upon this

point, stated that it had never entered his mind for a moment, and that he could not imagine any thing more ridiculous; that for years it had been his custom in every case to have the anesthetic given by a woman, and that there were at the same time four or five female nurses present at each operation. He therefore regards the point as unimportant.

That gigantic enterprise, a true illustration of all that is American in energy, talent, and editorial capacity, *The Annual of the Universal Medical Sciences*, is again before us. The work done in gynecology and obstetrics throughout the year is noted most carefully and nothing of any importance is omitted. The labor saving to the practitioner is wonderful. In looking over the work in this department our local pride is gratified. Cincinnati, who has a host of able gynecologists and obstetricians, furnishes much of the wisdom collected by the editors. Below may be found, selections from these selections.

In considering the causes of ectopic gestation the physiology of evulsion and impregnation must be discussed. Zinke says the following theories are generally accepted: (1) That the mature ovum under normal conditions is discharged from the Graafian vesicles at the catamenial period. (2) That the ovum is taken up by or finds its way into the fimbriated extremity of the fallopian tube, passing through the latter to the womb, there to await further development or escape with the menstrual discharge. (3) That the ovum may be impregnated shortly before its escape from the Graafian vesicle or soon after, or within the fallopian tube, or after its appearance in the uterine cavity. (4) That both the sterile and fertilized ovule may be (a) arrested at any point in its course through the tube, or it may be absorbed or developed as the case may be; (b) it may drop into the peritoneal cavity, there to meet the same fate; (c) a fecundated ovule may traverse the peritoneal space and enter the tube on the opposite side, there to be arrested within its canal or to find its way into the uterine cavity. (5) It is declared possible by Sée that the ovum after its arrival in the corporeal cavity, may in certain instances not remain there; but proceed onward and enter

the opening of the opposite tube, become fixed there and develop within the tube or the substance of the uterus. This appears to be far-fetched, but may be possible. (6) The fallopian tube on the side of the discharged ovule may be temporarily or permanently paralyzed, either from pressure or disease or adhesions, or the lumen of the tube may be occluded from various causes, in any of which cases the opposite tube in a healthy condition may have power to reach over and arrest the escaped ovule.

Dr. E. G. Zinke gives the causes as usually considered, thus: (1) Shock and terror coinciding with the time of fecundation. (2) Blows upon the abdomen shortly after fruitful coition. (3) Malformation of tube, paralysis or spasm of it; defective or excessively long tube; enlargement or swelling of its mucous membrane; hardening and retraction of the fimbriated extremity, as well as the obliteration of the tube within the uterus. (4) Inflammatory processes within the pelvic cavity and pressure upon the tube caused by swelling or morbid growth. (5) Desquamative salpingitis.

Dr. Iloway gives the symptomatology of tubal gestation: (a) The symptomatology from the outset of the period of labor; (b) the symptomatology after that period. At first there is consciousness of being pregnant, and in from four to ten weeks other symptoms, viz: (1) Colicky pains in the hypogastrium, usually very violent, preventing standing erect or lying stretched out; skin cold and pale, and covered with a clammy perspiration; pulse small and thready, with occasional vomiting. The suffering may be so great as to produce syncope, often paroxysmal, lasting a few hours or a day, then restoration to health until another attack. These pains rarely occur before the first month, and frequently not until after the fourth or fifth. (2) There may be in addition a fixed grinding pain in the iliac fossa extending down the thigh. Both forms of pain are more severe in the tubal variety. (3) Vaginal hemorrhage having a menstrual character may occur at intervals or be continuous. We may have symptoms of abortion or supposed abortion, profuse hemorrhage, with discharge of decidual mucous membrane. (4) Abdominal enlarge-



ment to one side, more common in the tubal varieties. (5) Deviation of the uterus from its normal position occasioned by a tumor located on either side, in front or behind. (6) The tumor being recognized, careful examination shows that it is elastic and fluctuating, and ballottement demonstrates the presence of a solid body within. (7) Vacuity of the uterus is shown by examination of the uterus with the sound.

Dr. A. W. Johnstone says: "The placenta develops from adenoid tissue of endometrium, which is ordinarily sealed from contact with the ovum by epithelium, giving a denuded surface; the development of the placenta depends further upon the agency of the sperm cell, which acts as a sponge or skin graft, inducing new formation of new tissue. Exfoliation of the placenta at term is due to the exhaustion or spermatie influence."

Articles on the hymen by the author of these notes are extensively quoted.

Dr. T. A. Reamy, in discussing the amenorrhea of anemia, common to school girls, says: (1) She must leave school, and must not even study at home. (2) She must spend several hours each day in the open air, either walking or riding. In winter she must of course be warmly clad; but must wear no sheepskins or other chest-protecting pads. Standing in the open air, she must be induced to breathe deeply with the mouth closed; this should be done for at least fifteen or twenty minutes, and be repeated at least twice a day. Nothing that can be done will more rapidly improve the character of her blood. (3) She must sponge her extremities and body each morning on arising from bed. The water must be of the temperature of the room, and she must practice friction freely with an ordinary towel. (4) She must drink plenty of milk and eat plenty of beefsteak. (5) She must take small doses of iron, combined with some bitter tonic, three times a day. Improvement may be somewhat slow, but if this course is faithfully carried out a perfect cure will result, and her education may then be finished.

If this course or its equivalent be not followed, these cases will go from bad to worse, and finally die of pulmonary tuberculosis.

My Fourth Conservative Cesarean Section, by Dr. H. A. Kelley, of Baltimore. The patient was dwarfed and rachitic, thirty-five years of age, weighing one hundred and fifteen pounds, and fifty-two inches high. Head large and angular with prominent forehead; body long and legs short, with marked outward curvature of the thigh bone, giving a distinctly waddling character to the gait. The previous history had been illumined by the fact that she had been paralyzed for a long time, beginning in her eighth or ninth year. She never grew any after that. The child was taken out alive and is still living and doing well, as is also the mother, who recovered without an untoward symptom. The details of the operation are given. This makes the fourth case for the doctor in three years, all the patients being alive and well.

The Use of Cocaine in Gynecological Surgery, by Dr. Wm. H. Humiston, of Cleveland, Ohio. He uses it in dilating and curetting, first, giving a tablespoonful of whisky or brandy, fill a hypodermic syringe full of a four-per-cent solution, with two minims of pure phenol to each half ounce of the solution, inject five minims into the posterior lip, wait two minutes, then with the bullet forceps, which will be painless, secure a firm hold. Inject into several portions of the cervical canal an amount equal to about twenty minims, dilate till can inject ten minims of a ten-per-cent solution into the uterine canal cavity. He has not given an anesthetic save cocaine in dilating uterine canal for the past three years, and his operations have included many primipara. In trachelorrhaphy inject the angle and surfaces you wish to denude, and you can operate with no pain at all. In perineorrhaphy he uses the split flap operation, and with one injection of thirty to forty minims of a four-per-cent solution he anesthetizes the whole field. He quiets his patients by telling them he will give them chloroform if they can not stand it; but has never had to do so. Has had unfavorable symptoms from the cocaine, which vanish very quickly after the administration of stimulants. He has dilated the urethra for fissure and irritable caruncle with but slight pain. He had assisted at an Alexander's oper-

ation where two grains were injected, one in each side at intervals of one half hour. The patient experienced but slight pain. He then reported a case where he performed the operations of trachelorrhaphy, anterior and posterior colporrhaphy and perineorrhaphy at one sitting, with cocaine as an anesthetic. The whole time required in making the four operations was one hour and forty-five minutes; and seventy-five minims of a four-per-cent solution of cocaine was used, or three grains.

Minor Uterine Surgery, by Dr. J. M. Baldy, of Philadelphia. He thought Emmet's operation for lacerated cervix should in most cases fall into that deserved disuse which has come to splitting up the cervix for sterility and dysmenorrhea. He thinks on the whole it had been better for womankind had the uterine sound never been invented. He thought the careful study of bimanual palpation would largely do away with the sound. Taking it all in all he decidedly approves of gynecological minor uterine surgery in the field to which it is applicable; but it must be borne in mind that this field is a limited one, and one which becomes more and more narrow as our diagnostic resources increase.

A Contribution to the Normal and Pathological Histology of the Tubes, by Dr. J. Wirtidge Williams, of Baltimore. He insisted there were three layers of muscular tissue instead of two. A twisted condition of the tube, he said, showed the border line between health and disease. The twists show an infantile condition of the tubes. This is found in women who are poorly developed sexually, and may be accompanied by sterility. The paper was accompanied by a number of well-executed charts.

CINCINNATI, OHIO.

## REPORT OF SOME CASES IN PRACTICE.

BY CORNELIUS SKINNER, M. D.

*Professor of Obstetrics and Gynecology, Hospital Medical College.*

CASE 1. Bettie T., colored, consulted me for constipation and painful defecation in the fall of 1890. Patient gave a history of her trouble, lasting for the past six years, with constant loss of weight and strength. Bowels moved

only when a strong saline purgative was taken, usually salts, and that about twice each week, the pain causing her to defer taking purgative until headache, etc., forced her to do something for relief. The pain was often so great as to cause the patient to scream. Stricture due to syphilis was suspected, and digital examination revealed a stricture of a cylindrical variety too long for the finger to pass. The improbability of a cure without an operation was presented, and at the same time the danger of any operation was made clear. However, since there was a strong suspicion of syphilis being the cause of all trouble, a specific plan was proposed and carried out for four months, with no change in obstruction, but some diminution of rectal discharge.

On January 8th, assisted by Drs. Morton, Wilson, and Griswold, inguinal colotomy was done, operation lasting twenty minutes. Long pins (two) were passed behind the bowel, resting upon the cutaneous surface and wound angles supported by silk stitches, no suturing of bowel to peritoneal edges.

On third day bowel opened with longitudinal incision, pins removed and wound dressed with iodoform gauze. On fifth day bowels moved slightly without pain. Sixth day, patient sat up in a chair and ate six corn cakes. From this time on there was no trouble, except a slight sluggishness of bowels, which improved daily. And at the end of the fourth week patient resumed her labor, consisting of cooking, washing and ironing for family of five (three small children). At the end of three months she had gained thirty pounds, and now is perfectly free from all discomfort, and has the usual morning desire to stool.

CASE 2. On Wednesday, February 4th, I was asked by Dr. T. H. Baker to see with him Mrs. W., age thirty-eight. Found the patient with temperature of 103.5°, quick pulse, face expressing anxiety and pain.

The doctor asked me to examine the abdomen for a tumor.

In median line just above the symphysis I could plainly feel an enlargement about the size of a cocoanut, smooth, round, elastic, and tender. On either side there was a very sensitive spot.



Dr. Baker had been watching the case for several days, reporting continued fever running from  $100^{\circ}$  to  $103^{\circ}$ , diminished amount of urine in twenty-four hours, with frequent desire to micturate.

With this examination we thought it a case of di-tended bladder, but left her with the expectation of concluding the examination next day under chloroform—Dr. Baker to return and catheterize. Next day I made a bimanual, finding uterus movable and markedly anteverted. Catheter again used, with no appreciable change in size of tumor. Sound showed uterus normal in depth and anteverted, not tender to manipulation. Under chloroform, no change in objective symptoms. Laparotomy was advised and readily consented to by patient's family and friends. Will state that at the age of seventeen she was delivered of a child (now a man), and has never since been pregnant, was at one time treated for "womb trouble."

My opinion previous to operation was, supuration due to re-excitation of old salpingitis, the abscess pressing uterus forward and downward.

Drs. Rodman, Cecil, and Roby saw the case at the infirmary, none using the uterine sound, and all agreeing with Dr. Baker and myself regarding presence of pus, and advising immediate operation, but of the opinion that we had a case of suppurating uterine fibroids.

On February 9th abdomen opened, with Drs. Baker, Roberts, Rodman, Cecil, and Roby present. In median line was found smooth elastic tumor about the size of child's head, with one nodule on right side, filling true pelvis, hiding from view every thing, and firmly fixed to all.

With little difficulty the superior omental adhesions were broken up, but all others were very firm, and in attempting to tear them down a large pus sac was opened, completely flooding the cavity; other smaller abscesses were opened until nothing remained but a large pyogenic wall, which was fixed to uterus, bladder, and pelvic walls. This was torn away in pieces, the right tube being tied off, the left being destroyed by supuration. There was considerable bleeding deep down in left side,

tissues too friable to tie. Spurting vessel checked by hemostatic forceps, cavity washed out with bichloride, oozing stopped by bichloride gauze pack, tube placed in and patient put to bed.

She rallied quickly, and did well up to seventh day, when pus began to form. Forceps and gauze removed on second day, stitches on seventh. Pus continued to discharge from tube, which was washed out every six hours with various antiseptics, chiefly bichloride and potassium permanganate. Discharge gradually grew less until twentieth day, when tube was removed. Patient left infirmary March 12th well, and has not had the slightest return of trouble.

CASE 3. In February I was asked by Dr. Morton, who was confined to his bed by illness, to see Miss V., aged thirty-five, type-writer. Patient had been a sufferer from painful menstruation, headaches "all her life," and had been treated at various times for ovarian trouble and by various physicians. Will say that ovariectomy was proposed to her by Dr. Larrabee as long as four years ago, with prompt refusal.

On the 25th of January, Dr. Larrabee giving chloroform, assisted by Dr. Griswold, Dr. Bailey being present, I removed both ovaries and tubes. There being numerous firm adhesions, a drainage-tube was placed in and the wound closed. Operation lasted forty-five minutes. Pulse at close  $102$ . Drainage-tube "drawn" every half hour. At 3 o'clock P. M. temperature  $97.6^{\circ}$ ; pulse  $120$ . Very restless; half ounce fluid coming at each drawing, very red and clotting. 4 P. M. telephoned for. Pulse  $140$ ; temperature  $98.6^{\circ}$ . Pulse indicated hemorrhage, no other sign. This was attributed to restlessness, and one quarter grain morphia was ordered hypodermatically. Pulse came down gradually, but there was a great deal of nausea. Patient was kept on hot water by mouth and rectum, but nausea continued until iodoform was left off as a dressing. Will say here that I have not used iodoform as a dressing since this case, and the result has shown that no mistake was made in discontinuing it.

Owing to the amount of bloody serum drawn each time, the tube was not removed until

afternoon of fifth day. This long use of tube I think was a mistake, for my opinion is, the tube acted as an irritant to increase effusion. The result has been all that could be desired. All pains are gone and patient feels "perfectly well." Is at work every day.

CASE 4. Mrs. F., age thirty; married eleven years, pregnant twice, both going to full term. First child died from some acute infantile trouble. Second child living and healthy at six. Family history good, but in appearance pale, thin and anemic.

Gave history of trouble, beginning at birth of first child; severe daily headaches requiring morphine injections. Patient unable to walk up or down stairs, and had not walked as far as two blocks for years—literally a confirmed invalid. Digital examination revealed lacerated perineum of second degree, with some rectocele; uterus normal in size, slightly sagging; marked tenderness in region of both ovaries, but no tubal enlargement; menstruation regular, but very slight in amount. Plan of treatment proposed and consented to, was immediate repair of perineum, withdrawal of morphine, and general tonics begun. Operation a success, patient walking ten blocks with comfort and ease. General condition much better, but headaches remaining, also slight menstruation. Suspecting cirrhotic ovary, their removal was proposed as the only means of relief. The dangers of such operations were given, but patient readily consented, saying she would risk any thing for relief. Before removing the ovaries, the patient was sent to her home in the interior of the State for one month, to get full benefit of first operation. She returned at the time specified, against the wishes of family and advice of home doctor, who said "any such operation would be sure to kill her." With the assistance of Drs. D. Morton and J. C. Wilson I removed both tubes and ovaries, which were markedly cirrhotic. Patient had no bad symptoms, and owing to serious illness of her father went home on the twelfth day, a distance of one hundred miles. Headaches rapidly became less frequent, until in the past ten months she has had only two. Her whole condition has improved.

CASE 5. Delpha T. (colored), referred to me

by Dr. T. A. Roby, of Paris, Ky. Patient's age thirty-five. Married, but never pregnant. She gave the usual symptoms of fibroid, and on manual examination quite a nodular mass filling the pelvis and extending to umbilicus was made out. This was in the afternoon of May 1st; next morning was set for the operation. In a one-room cabin, assisted by Drs. Roby, Buck, Ray, and Mr. Garland (a student), others present being Drs. Joe and Frank Fithian, Eads, and Adare, I removed the mass, which included thirteen distinct tumors from the size of a walnut to that of a large coconut, uterus ovaries and tubes, by hysterectomy; time of operation and toilet, forty-five minutes. Pedicle treated extra-peritoneally. Leaving patient in charge of Mr. Garland as nurse, I returned home.

At the expiration of first twenty-four hours I received a telegram from Dr. Roby, saying that during vomiting, pedicle pins broke (they were four-inch steel needles, but too slender); hernia occurred, but had been reduced. I saw patient at end of next twenty-four hours, there was no shock, no fever, patient feeling good. With the finger as a guard I removed fragments of pus, also serrenoeude and wire; there was no hemorrhage, nor trouble to follow. Mr. Garland remained with patient until seventh day, and left her free from fever and feeling able to get up. With this restraint off the husband made it his business to get helplessly drunk. No one within call, the patient got out of bed for a drink, and in doing so she fell across the foot of the bed where she lay for two hours, until Dr. Roby's visit. She never rallied from this accident, and died in four hours. *Post-mortem* showed wound healed and no evidence of septic inflammation.

The pedicle was not brought to surface after pins broke.

CASE 6. Fannie S., age about thirty five. Had been a patient at my clinic for the past two years. She first came with a well-marked case of endometritis, which yielded readily to treatment. Three or four months after her discharge, she returned and was found to be pregnant. Shortly after this visit she was attended by a student in abortion, self-induced. Her getting up was very slow, and she again re-



turned with the following symptoms: Extreme tenderness over both ovaries and uterus, vaginal touch very painful, slight leucorrhea, abdominal muscles tense, some elevation of temperature. Menstruation had not returned. Diagnosed it a case of salpingitis with effusion and possibly pus.

Their removal was proposed. None of the various infirmaries being willing to receive a colored patient, and the City Hospital being in such poor condition, I had cleaned and fitted up her own room, by whitewashing, scrubbing, new bedding, etc. In the presence of about fifteen students, Dr. Hays assisting, I opened the abdomen. Found both tubes enlarged to the size of the thumb. Ovaries and surrounding tissue, as well as peritoneum, inflamed, but no pus.

The ovaries and tubes were removed and abdomen drained.

Patient rallied well and had no fever until fourth day. Tube was removed on second day and treatment routine. She died on seventh day from sepsis. Hygienic surroundings were very bad, but the best to be had at the time.

CASE 7. Mrs. M., age seventy, mother of three children, has been in good health all her life. I was asked to see her in the summer of 1890, and gained the following history. At irregular intervals she would have attacks of abdominal swelling which gave great discomfort, the swelling going down in a day or two, and with it the pain. On examination the abdomen seemed quite large and uniformly so; tympanitis well-marked all over; deep palpation revealed a smooth fluctuating tumor slightly to left of middle line; no pain. A diagnosis of ovarian cyst was promptly made, with the explanation that these occasional attacks of indigestion so increased the amount of gas in bowels as to give discomfort and attract her attention.

Ovariectomy was proposed and taken under consideration by patient and family, but not until July of 1891, and after another attack of indigestion did she consent to the operation. In July, assisted by Drs. Wilson and Cecil, I removed a twelve-pound non-adherent cyst. No drain used. Time of operation and toilet, twenty-one minutes.

There was not a bad symptom. Patient left infirmary at the end of two weeks.

CASE 8. Mrs. M., age thirty-eight; married six years. No living children. Patient sent to Dr. Morton by Dr. Moss, of Williamsburg. Dr. Morton, being away from the city at the time, turned patient over to me. Family history good. One abortion four years ago, and a second six months previous to visit.

There was to touch extreme tenderness in both ovarian regions. Locomotion very painful and copulation impossible. Copious discharges of pus from uterus at irregular intervals. Uterus normal in size and position.

Diagnosis of pyosalpinx and the removal of both tubes proposed. Dr. Cecil saw this case and concurred in both diagnosis and treatment. In June, assisted by Drs. Moss, Cecil, Wilson, and Griswold, I removed both tubes and ovaries during menstruation. Adhesions were quite abundant, tube the size of a lead pencil and congested. There was a slight amount of pus in the right one, but none in the left. The drainage-tube was left in for first twenty hours, and the patient's recovery was uninterrupted. While much of the pain is gone, the discharge from uterus stopped, the pains in right side remain. On the authority of Tait and others I promise her that all pain will cease.

CASE 9. Was asked by Dr. D. Morton to see with him Mrs. G., widow, age forty-six; one child grown. History good, with the exception of constantly enlarging abdomen, with increasing discomfort. Tumor first noticed by Dr. Morton about two years ago, and diagnosis then made of fibro-cyst, ovarian, and its removal proposed, but treatment postponed. At my first examination in May, 1891, tumor occupied every region of cavity, very elastic in places, but generally having the feeling of a solid mass. No positive opinion given.

June 26th, Dr. Bullock administering ether, Dr. Morton removed the growth. Tait's largest trocar was used to draw off the fluid. Owing to the thickness of cyst wall it was with difficulty introduced.

One of the most peculiar features of this tumor was the variety of fluids it contained, seven in all, varying in color from light amber

to dark molasses, and in consistency from that of urine to cooked starch. Assisted by Dr. Cecil, I tied off the pedicle, but was forced to enlarge incision to seven inches before the thick-walled-sac would pass.

The accident of the operation was the slipping off of pedicle ligature. This was quickly grasped by the hand and again tied. Tube removed on second day. Patient had no rise of temperature,\* and left infirmary after two weeks.

CASE 10. Carrie R. (colored), age thirty-seven; married; never pregnant. Referred to me by Dr. Morton. Has had growing tumor for six years, and in fact for twelve months has been unable to attend any kind of work. Diagnosis other than tumor not given.

On July 5th, in a tent on City Hospital grounds, Dr. Bullock administered ether, assisted by Drs. Cecil, George Simpson, and A. O. Kennedy, and the hospital *internes* (various other medical friends present), I removed a fibro cyst of left ovary, weight thirty-five pounds. Considerable delay was caused by the extensive adhesions and especially by cutting down upon one while opening the cavity. Pedicle was too large to tie, and was treated extra-peritoneally, drain-tube used. Time of operation and toilet, forty-five minutes. Shock was not great, except during time of treating pedicle.

Abdominal incision was very large. Will not give details of recovery for lack of space, remarking that tube was removed on third day. Patient left hospital in four weeks and now is perfectly well.

LOUISVILLE.

LEPROSY IN JAMAICA.—Dr. Donovan, in his annual report to the Governor on the Lepers Home, Jamaica, estimates the leper population of the island at 450, or one leper to 1,380 of the population. Pending general legislation on the question of isolation, he recommends a prohibitive enactment against lepers keeping provision stores or being employed therein, or in the preparation of food; that no leper be allowed to engage in any of the following vocations, namely, baker, butcher, fisherman, tailor, school-teacher, etc.

## PYEMIA FOLLOWING A WOUND TREATED BY SULPHATE OF CINCHONIDINE.

BY JAMES C. PEARSON, M. D.

B. L., aged fifty, on the 24th day of January, 1890, on the crossing of the Ohio & Mississippi and Monon railroads, at Mitchell, Ind., attempted to cross between the cars which were standing on the crossing, and in doing so he placed his left foot on the connecting link between the cars, at which time the engine backed, throwing the cars together and crushing his foot through the instep. He was immediately taken to a physician's office, when he, together with a second physician, advised him to have his foot amputated above the ankle, to which he objected, and requested them to cut off his foot at the instep, which probably would make Chopart's operation. Instead of doing as he requested, they applied the bandage, and dressed his foot as best they could under the circumstances, without making the necessary operation; then sent him home, where they attended him till the muscles covering the instep had ulcerated and the bones and tendons were made bare by sloughing, and one or more fistulous openings had formed in the plantar surface of the foot leading to the suppurating cavity, above which it seemed to involve the entire foot; besides there was gangrene of the great toe, and one end of the scaphoid and the middle cuneiform bone were projecting above, and black as if necrosed or dead. His pulse was soft, quick, and very weak; his temperature I did not get. He was emaciated and badly prostrated. His physician aptly remarked that it would not do to operate upon him now, so he passed the case over to my care. I was at that time physician to the poor of Marion Township, Lawrence County, Ind. I found him taking morphine, sulph. quinine, and iron. His local treatment was application of vaseline to the sloughing surfaces of the instep and carbolic acid as an antiseptic.

I took charge of L., intending to do the very best I could for him, which I feared would result in but very little, if any, good toward recuperating or restoring my unfortunate patient to his former health, much less to make him a useful foot.



Treatment: Owing to the sloughing of the muscles and tendons of the instep, caries of scaphoid and middle cuneiform bones and gangrene of the great toe, I applied a yeast and charcoal poultice, to be alternated every fourth hour with *ulmus fulva*, and continued the iron, quinine, and morphine sulphas.

April 24th: Patient doing quite well under the circumstances, when to my great surprise, my patient informed me that his landlord had rented the farm on which he was living and must have the house he was then occupying. It was raining, the roads were very muddy, and his condition was such it would not be safe to move him to Mitchell during such inclemency of the weather. Nothing short of moving Mr. L. would meet the demands made by the landlord. Accordingly he was moved into the only house that could be procured. Its surroundings were so filthy the poor fellow could not get a breath of pure air, and the result was he soon had chills or rigors, low fever, rapidity and feebleness of the pulse, prostration, delirium, and swelling of the joints.

I felt that death was imminent, and that it would probably occur in a few hours from devitalization of the blood, for the only thing that could save him would be support and depuration of the blood. The question was, how could this be done without his having pure air, which is both preventive and curative of pyemia or septicemia. For his support, I gave him sulph. cinchonidine, gr. xx, and to control his bowels and quiet him I gave pulv. opii, gr. viii, ft. chart No. 16; one every hour until his circulation began to rally. After taking the third dose his pulse was fuller and he was more comfortable. I repeated the medicine in two hours after taking the second dose. He was then ordered to take the powders four hours apart, with carb. ammonia, gr. x, between each dose. At the same time I had the house and surroundings cleared of all debris and filth, and quick lime thrown around the premises, and a solution of carbolic acid, ten per cent, on his poultices and sprinkled over his bed and bed clothes, also cups filled with it and set under his bed and in every corner of his apartment where he lay. His case progressed nicely for about eight days, when his

wound stopped running, and suddenly he became sick, vomiting and purging, pulse very feeble and frequent, prostration extreme, and a cold, profuse sweat. Treatment: Rub the sweat off with dry flannels and give sul. cinchonidine, gr. xx, pulv. opii, gr. viii (M.), div. in eight powders, every hour till better, then every three or four hours with tincture ferri chloridi, ℥ xx, in wine-glass of water every four hours. He has suffered in this way as often as every eight or fourteen days since his first indications of pyemia or septicemia, the attacks gradually growing lighter. The muscles of the instep had improved to so great an extent that I amputated the great toe at the metatarso-phalangeal joint, and with the bone forceps I excised the scaphoid and middle cuneiform bones on the 7th day of December, 1890. His case passed on favorably for about eight days, then his foot began to swell and pain him severely. The fistulous opening in the plantar surface of the great toe was surrounded by a dusky-red appearance of inflammation. No discharge of matter. He was prostrated with nausea and severe pains in the bowels, indicating prevalent infection. I applied carbolic acid undiluted and slippery elm poultice to the affected part and gave internally sulph. cinchonidine, gr. x, and pulv. opii, gr. j (M.), every hour until three doses were taken, then every two to four hours so as to keep him quiet. In about twenty-four hours the foot was discharging a serous, bloody matter, and he had rigors and some fever. The edges of the fistulous opening were everted and looked whitish or yellowish. Applied nitric acid to fistulous opening, carbolic acid and charcoal poultice to foot, and gave sulph. cinchonidine, gr. xx, pulv. opii, gr. ij (M.), every third hour from this on until there was marked improvement in the symptoms. His improvement was less interrupted, and continued. Now he is able to walk on crutches, and may yet have a pretty fair foot.

July 9th, 1891: He now lives about four miles east of Mitchell. When, to-day, he was on his way to Mitchell, he walked one mile and a half on his crutches, and weighed in the same notch he weighed on the day he received his injury.

## Reviews and Bibliography.

**Zeitschrift für Orthopädische Chirurgie, Ein-schliesslich der Heilgymnastik und Massage.**  
Journal of Orthopedic Surgery, including Gymnas-tics and Massage.

Late years have not only developed medicine as a whole, but the refining process has permeated its separate departments to such an extent that we can no longer strive to become masters of the whole, but must content ourselves with a general knowledge of the entire subject and a more intimate knowledge of the single department that may have been our individual choice.

In keeping with this specialization the literature touching upon the same has of necessity likewise undergone a similar evolution, an example of which we have before us at present. This current publication promises to be one of the foremost representatives of its kind in any tongue, and to those who are fortunate enough to be German scholars it addresses itself as one of exceptional merit. The editor, Dr. Albert Hoffa, of Wirtzburg, is assisted by a corps of the ablest continental orthopedic surgeons, and from the introductory which accompanies the first number, it is evident that the journal will be conducted upon a broad and aggressive plan, developing the operative side of orthopedics rather than being content with the mechanical alone.

The first copy of Volume I contains five carefully prepared original memoirs, with a suitable number of figures illustrative of the text. (1) Contribution to the therapy of scoliosis, by Prof. Adolf Lorenz, of Vienna. (Five illustrations). (2) A new splint for the treatment of contractions, by Dr. Hermann Krukenburg, Assistant Physician to Dr. Schede's Clinic. (Two illustrations). (3) An investigation upon spinal curvature in sitting children, and a contribution upon the mechanism of sitting, by Dr. W. Schulthess. And another by the same author upon a new school-bench for the Zurich Industrial School. (4) A communication from the private orthopedic clinic of Dr. Haffa upon the causation of curvation of the neck of femur, by Dr. Julius Schultz, Rostock. (Six illustrations.) And another

by the editor (Dr. Haffa) upon a redressive arrangement for correcting thoracic deformities in scoliosis. (5) On congenital wry-neck, by Prof. Ferd. Peterson.

AUGUST SCHACHNER.

## Abstracts and Selections.

ON APROSEXIA AND HEADACHE IN SCHOOL CHILDREN.—It is not quite a new question to which I wish to draw the attention of the Section. For a number of years various authors, besides myself, Rupprecht, Michel, Seiler, Hack, Elsberg, Schäeffer, Ziem, Bresgen, and others, in the study and treatment of diseases of the nose, have published cases where disturbance in the cerebral functions were prominent. In 1887, I proposed the name of *aproxexia* for one of the principal symptoms of this disturbance, that is the inability to fix the attention on any more or less abstract subject. With the impairment of the attention goes feebleness of memory and tendency to headache. In some cases the organs of sight and hearing are successively affected, conjunctivitis and hardness of hearing being the results.

I will not now go into details, as I have done so in a paper read at the meeting of the British Medical Association in Leeds in 1889. I have been very glad to see that not only has the name *aproxexia* been very generally adopted, but that my views have been confirmed by various authors belonging to different countries. So, in England, Dr. Hingston Fox has published a paper on Nasal Catarrh and Aproxexia. Dr. William Hill "has found in the Earlwood Asylum for Idiots that nearly all the children are mouth-breathers, night-snorers, and the victims of nasal or pharyngeal obstruction. They are all *aproxexic*."

In Germany, Dr. Max Bresgen has sent an address to the Minister of Public Instruction, requesting that a regular medical supervision should take place in schools, especially with regard to the state of the upper respiratory organs of the school children. I must add that he did this before my first publications on the subject, in 1884, and that he sent a second address in 1887, in which he made use of my publication on *aproxexia* as an argument giving new strength to his previously expressed views and wishes.

Dr. Kafemann, in Danzig, has published the result of his examination of 2,238 school children between six and fourteen years of age. He found nasal stenosis and insufficient nasal respiration in about ten per cent of the chil-



dren, producing aprosexia in a great number of cases.

In France Dr. Raulin, in a paper published in 1890, has expressed much the same views, and has laid great stress on the necessity of regular medical inspection not only of the schools but also of the school children, especially with respect to the state of their nasal respiration.

So we see that medical opinion, so far as it is expressed, is on the way to agreement with regard to the principal aspects of the question; but I am not aware that the men who have influence on the hygienic organization and supervision of schools, and the teachers themselves generally, are sufficiently impressed with the importance of the question.

I should therefore like to give here two examples from my own practice of last year, which will illustrate that importance:

1. I have seen a case nearly identical with the first case which drew my attention to the subject, and which I have already published. A child of parents of very fair social status, aged about seven years, was brought to me last year with enlarged tonsils, complete mouth-breathing, and a decidedly stupid-looking face. The hearing was nearly normal; nevertheless the child, who had been to school a whole year, had not been able to learn more than the three first letters of the alphabet. I removed the tonsils and ordered an appropriate treatment for the nasal stenosis. A few weeks after the beginning of the treatment the child knew all the letters of the alphabet; he is now getting on at school like other children, which it is clear he could not have done in his former state, when he was not able to learn or recollect the letters of the alphabet. He would in that state have been declared a mentally-feeble or even an imbecile child by any competent person not acquainted with the symptoms of aprosexia.

2. The second case which I wish to record is that of a girl of fifteen years, brought to me by her father on the 8th of April last. She has complained of habitual, almost daily headache for the last two years, and has great difficulty in getting on at school; the lessons which she learns in the evening she has forgotten the next morning. She has been a mouth-breather from her earliest infancy, as may be inferred from the fact that she had great difficulty in suckling, on account of her nasal respiration being deficient even at that time. The hearing is nearly normal, she could hear whispered words at eight meters with the right, and at nine meters with the left ear. I removed part of the pharyngeal tonsil and directed treatment for the nasal stenosis.

One week after that, when she came to see

me again, I was astonished at her bright looks; she had had no headache at all, and on my questioning her about the state of things at school, I heard that the teacher that same morning had given her a mark of 5 for history. I asked her what figure she had obtained formerly, 5 being the highest figure. The answer was that she had had a 0 the whole year, only now and then a 1. On May 8th, when I saw her for the last time, she told me that she now learned her lessons very easily in the morning before school-time, and in every respect she could be considered as a normal child.

These two cases may stand as examples of an only too numerous class of children suffering from nasal aprosexia, and giving the impression of feeble-minded children, which they are not, and need not be, if adequately treated.

In conclusion, I wish to indorse the conclusions of Dr. Raulin, of Marseilles, as given in the paper already alluded to:

1. No child should be taken in at a school without a medical certificate showing it to be bodily fit for the mental exertion of intellectual training.

2. There ought to be medical school-inspectors, to whose duty among others should belong the careful inspection of the upper air-passages of the school children.

3. Teachers ought to indicate to the medical inspectors all children who remain backward in intellectual development, and who breathe through the mouth.

And I, for myself, should like to add to these one more conclusion:

4. So long as medical school-inspectors are wanting, teachers should be impressed with the importance of giving attention to the question of mouth-breathing, especially in children who remain backward in intellectual development, and with their duty of warning the parents or guardians of such children to seek competent medical advice.—*Dr. Guye, London Practitioner.*

RETENTION OF URINE OF NERVOUS ORIGIN, AND VESICAL NEURASTHENIA. — Guyon calls attention to the large number of patients consulting the surgeon, who complain of constant difficulty in micturition, but who present no appreciable lesion of the urinary apparatus. Patients with well-defined lesions in the urinary tract are often utterly unable to evacuate the bladder, and suffer retention of urine more or less complete. On the other hand, such a degree of functional impairment is exceptional in those in whom no lesion is detectable, although appreciable derangement of micturition may be present. Guyon reports three illustra-

tive cases that have recently come under his observation, two in men and one in a woman. In the case of the first man, thirty-four years old, there was a history of gonorrhea six years previously. Two years prior to his admission into the hospital he had acute retention that yielded after some hours of manipulation with a fine bougie. Since then he had urinated with difficulty, the urine passing in a small stream. The symptoms increasing, he entered the hospital after not having passed urine for thirty hours. On passing a sound, it was found that the anterior portion of the urethra was free, but that the instrument was arrested beneath the pubes, and it was only after repeated efforts that a filiform bougie could be introduced into the bladder. The urine that was discharged was perfectly clear. Examination showed that the testicles, the epididymis, and the deferent canal were in a normal condition. The prostate was small and nodular; the seminal vesicles were also nodular. There was manifestly a profound genital tuberculosis without involvement of the testicular apparatus. Guyon, who never fails to make rectal examination in cases of this kind, has a number of times made similar observations, which are not in accord with the views of surgeons generally, who claim that genital tuberculosis begins in the epididymis. By rectal touch a more thorough investigation of vesical sensibility is possible than by any other means. In the case in question there was no cystitis and no urinary tuberculosis. The existence of genital tuberculosis, however, was positive. An examination of the bladder was made by means of the manometer of Duchastelet, and a lessening of the vesical sensibility was found, together with a very notable diminution in the contractility of the bladder. An examination of the nervous system did not reveal any somatic nervous stigmata, but revealed a neuropathic condition that was made evident, among other phenomena, by an excessive sensitiveness so marked that the patient was moved to tears upon being interrogated. The patient also gave a history of hereditary tuberculosis. Urethral spasm was evident, and was associated with a symptomatic spasm, probably dependent upon a genital tuberculosis. The retention of urine was of nervous origin, the vesical sensibility not being exaggerated.

In the case of the second man there had for a year been difficulty in micturition of gradually increasing intensity. He could with difficulty urinate in a stooping posture; to induce a more abundant expulsion of urine, while still in the stooping position, he was compelled to exert firm pressure with the hand upon the perineum, at the same time bending forward.

There was no evidence of a medullary lesion, no anesthesia, no hyperesthesia, no modifications of sensibility, no history of inherited disease. The patient, however, had always been subject to intense pains in the head. He had frequent attacks of depression and melancholia without any appreciable cause. Most careful examination failed to detect any disease of the urinary apparatus. The membranous portion of the urethra was not abnormally resistant. The urethra was perfectly normal, the prostate pliant and not enlarged. The bladder, examined with a metallic sound, was scarcely sensible to pressure and permitted distension. It emptied itself imperfectly and slowly without propulsion. Its contractility was undoubtedly enfeebled. There was no doubt that the trouble in this patient was nervous in origin; in other words, that it was an instance of true hysterical retention of urine.

From these cases it is evident that in man the retention of urine may be due to a spasm of the membranous portion of the urethra, but it remains to be proved that this may also be the case in women. This spasmodic condition may coincide with a diminution of the contractile power of the bladder. Hence, in the investigation of urinary retentions of nervous origin, a study of the vesical contractility should not be neglected. The participation of the bladder in the production of derangements of micturition is beyond doubt. This participation is, moreover, evident and always of great importance in other varieties of retention. The influence of nervous diseases, either slight or grave, upon the vesical contractility seems to be incontestable. Although the researches in this direction that have been made are far from complete, they already appear demonstrative. Various visceral neurasthenias have been described, including genital neurasthenia, but so far as is known a vesical neurasthenia has not yet been made the subject of any particular investigation. From its frequent occurrence and distinct clinical manifestations, it appears proper, however, henceforth to give it a place in the category of the visceral neurasthenias. — *Annales des Maladies des Organes Génito-urinaires.*

CRISIS OF THE DIGESTIVE TRACT IN GRAVES' DISEASE. — The diarrhea and vomiting of Graves' disease have not received in England the attention which their frequency and marked character deserve. Both are very common symptoms; Marié records the occurrence of diarrhea in twelve out of fifteen cases, Dr. Samuel West in seven cases out of thirty-eight, and Dr. Hector Mackenzie in eight out of twenty-eight; but of the thirty-two cases recorded from Manchester in the same report of the



Ophthalmological Society, it only occurred in one case. The fact is that patients often forget or overlook these attacks, ascribing them to ordinary digestive derangements.

Of nine patients whom I have had constantly under observation during 1890-91, four have presented these crises in their typical form.

The diarrhea has a very marked character, being paroxysmal, so paroxysmal that Charcot has likened it to the gastric crises of locomotor ataxy. The bowels are quite natural and regular perhaps for some weeks, and then suddenly, at any time of day, but usually in the early morning, and with no apparent cause, the patient has an urgent call to the closet and passes without pain or colic a huge liquid motion. The motions are serous and generally light-colored. There are three or four motions of the same character each twenty-four hours for several days, and then the attack ceases as suddenly as it began, and there is an interval perhaps for a few days, weeks, or even months.

Another common digestive trouble is unnatural craving for food (*boulimie* of the French, *βουλμία* = "monstrous hunger"). It is not so common as diarrhea, and presents two forms; in one the craving occurs in paroxysms, extending over several days, at long intervals, in the other the hunger occurs almost daily, several times a day, for periods of an hour or so; the subjects describing themselves as "faint for want of food," often soon after a meal; the hunger in this second variety is not so intense as in the first. Both these conditions may accompany the diarrhea and vomiting, but do not necessarily do so.

Hemorrhage from the stomach and intestines may accompany these crises. The hemorrhage is usually small in amount and the blood bright. I have frequently seen the vomited blood, and have never found it digested, while melena is rare. The explanation of this probably is that the same vasomotor change which produces the bleeding is sure to produce a serous flux into the digestive tract, which is followed by immediate evacuation of contents.

Marié draws attention to the fact that diarrhea has been recorded in such cases as present marked tremor, and this was observed in my cases, but there is little doubt that only confirmed cases of Graves' disease present these intestinal crises, and very few confirmed cases are without tremors.

Nevertheless diarrhea may be an early symptom, for though in three of my cases the patients had suffered respectively for two, three, and twenty years from some signs of Graves' disease, in the fourth attack diarrhea was one of the earliest symptoms, but it

proved to be a very rapidly developing instance. Charcot doubts whether these crises ever show themselves in precedence of other cardinal symptoms.

In one case of mine the attacks were sometimes accompanied by rise of temperature; so that once when she was staying at a town where typhoid was then epidemic, she was pronounced to be suffering from it. Her description of her illness tallied so exactly with that of subsequent attacks that I have no doubt it was one of her usual crises; but it was almost the first she had had, though they afterward became more regular and violent. I failed to find any constant relation between the fever and diarrhea, though she was subject to occasional rise of temperature, as is so common in Graves' disease. No direct relation was found by M. Bertoye in his elaborate investigation on the subject, though he establishes the existence of cases in which the temperature-chart resembles that of typhoid most strikingly.

The patient mentioned above, who had the attack of diarrhea early in the disease, presented the peculiarity of sudden rectocele at the occurrence of the first attack. There was slight uterine prolapse, but the uterus was small and healthy, and the menses were regular and natural. The descent of the rectal wall was, however, marked, and in spite of various pessaries accompanied subsequent crises of diarrhea. The whole pelvic floor and organs in the pelvis were very thin and weak, though otherwise healthy.

The diarrhea rarely yields to any treatment. Dr. West speaks of it as "uncontrollable, hardly amenable to any treatment." I have tried full doses of opium by mouth or suppositories in all cases, but in only one did it ever produce any effect; in her it always lessened the severity and duration of the attack.—A. Maude, M. D., *London Practitioner*.

THE TREATMENT OF FURUNCULOSIS.—Dr. Viel publishes in the *Monatschrift für Pract. Dermatologie* an interesting paper on the treatment of furunculosis. He says that the first aim of such treatment should be to destroy the pyogenic coccus in the skin by anti-parasitic remedies before necrosis of the tissues has taken place. If this necrosis has already taken place, then the separation of the necrotic mass and the expulsion of the pyogenic cocci should be accelerated as much as possible. The next aim should be to prevent by injections a new formation of boils. Lastly, the system should be prepared to resist a new invasion of the cocci. The author says that it is rarely possible to fulfill the first condition, and when once the

invasion of the pyogenic cocci has produced visible alterations, such as swellings, nodes, or vesicles, necrosis has occurred, and the glandular secretory tract is occluded by pus. This prevents any antiseptics which have been applied to the skin from penetrating to the pyogenic cocci at the fundus of the gland. It is therefore impossible for the carbolyzed mercurial plaster of Unna, the concentrated spirituous solutions of boracic acid recommended by Lowenberg, and many other applications, to do any good. The injection of a three-per-cent carbolic acid solution and the introduction of a wire armed with nitrate of silver are most painful and, after all, uncertain. In speaking of the next condition of treatment the author decidedly recommends the old method of hot poultices. He considers that no remedy leads so quickly and certainly to the desired result. To prevent infection of the neighboring tissues he recommends washing the skin with cotton-wool dipped in a one-per-cent solution of corrosive sublimate, or, when the skin is very sensitive, of a four-per-cent aqueous solution of boracic acid, before the application of each poultice. At night the boil is covered with a paste of equal parts of zinc and vaseline with four per cent of boracic acid on lint. He also recommends that very indolent boils should be opened, and thinks that it is wrong to squeeze them too soon. The paste also serves to guard the neighboring glands from infection. When a bath can be borne, the author prescribes sublimate baths. He gives his patients highly nourishing food, and when they are anemic preparations of iron.—*London Lancet*.

**TREPHINING IN JACKSONIAN EPILEPSY.**—In the case of a little boy, aged twelve, who had bruised his head by a fall, without loss of consciousness, epileptiform convulsions showed themselves about a fortnight after the accident, beginning from the right hand. These grew sufficiently serious to induce M. Verchère to operate; and in April, 1890, he made a large opening in the skull over the left fissure of Rolando. The brain seemed to be under high pressure, as it readily bulged forward into the opening. Considerable improvement followed; though there were occasional fits at long intervals. These have now become very trifling, and a healthy mental state continues. In another case under M. Charcot's care, on which M. Terrier had been asked to operate, the fits had begun in the great toe, and had been followed by some paralysis. A lesion near the paracentral lobule was diagnosed, and trephining done accordingly. The wound was healed by the tenth day, but there was only slight relief of symptoms. M. Terrier, President of the

Chirurgical Society of Paris, in reading a summary of twenty-one analogous cases, which have been published, found that twelve had resulted in cure, six in improvement, and three in no benefit. Such results he thought encouraging. What was the mode of action, when no part of the brain was removed as in these cases, he considered undetermined, though it was possible that in some cases at least it might be by relief of overpressure. M. Lucas Championnière, continuing the discussion, was inclined to take less favorable view of the results. He knew of several cases in which the operation had been followed by death, and these had not been published; and he thought that the determination of the seat of injury was too often accepted as an easy task. He instanced three cases in which the localization had been considered sufficiently distinct, and sufficiently cortical to warrant operation, but in all of which the result had been immediate death, and a cerebral condition had been found different to what had been anticipated. In the two first the lesions had been considered cortical, but there were found large tumors of the base of the brain in the one case, and of the skull in the other. In the third case, M. Charcot had diagnosed a Jacksonian epilepsy, but a state of diffuse meningo-encephalitis was found after death. Still, as a surgeon, M. Championnière had seen great good follow trepanning in epilepsy, due, as he thought, to the relief of intracranial pressure; and he was, as a rule, in favor of making no attempt to replace the excised bone.—*Le Progrès Méd.: London Practitioner*.

**THE ETIOLOGY OF CHEYNE-STOKES RESPIRATION.**—Dr. M. A. Boyd read a paper on the etiology of Cheyne-Stokes' respiration, in which he reviewed all the physiological explanations of this phenomenon offered by writers on the subject since Stokes' time to the present day. He particularly pointed out the very rational explanations offered by Traube and Filehene, who regarded the respiratory derangement from the altered nutrition of the respiratory center point of view; and those of the Dublin School, including Hayden and Little, who regarded it primarily from the cardiac point of view, and complimented the Dublin School as offering by far the best evidence, both clinically and pathologically, in explanation of the phenomenon. Having alluded to the marked rhythmical irregularities between the heart pulse and respirations in this affection, Dr. Boyd drew attention to a point which heretofore in the literature of the subject, so far as he was aware, had not been previously alluded to—namely, that the latter portion of the forced respiratory



phase of the Cheyne-Stokes' cycle is chiefly an expiratory one, in contrast to the first portion of it, which is an inspiratory one; and that this forced expiration had a most important bearing on the weak ventricles of the heart, by helping them to squeeze the blood on the one side into the pulmonary artery, and on the other into the dilated and inelastic aorta. In proof of this he exhibited sphygmographic tracings showing that it was only during this expiratory portion of the respiration that arterial tension was raised in the arteries, and that this tension continued through the apneal period following, during which time the respiratory center was fully supplied with arterial blood and the weak and degenerated left ventricle resting. He regarded the apneal period, during which time respiration was suspended, as only an effort on the part of the higher automatic centers to rest a heart the ventricle of which is either too feeble to charge an arterial system, the aorta of which may be dilated and inelastic, or the vaso-motor control of which may be defective, and whose own blood supply may be rendered insufficient in consequence, and its nutrition enfeebled. After the intrinsic muscle of the heart has been fed by this increased arterial tension of the expiratory and apneal periods, forced inspirations begin again, and the heart contractions are stronger, but they fail to fill the dilated aorta, till the forced expirations, by making pressure on the ventricles, come to their aid again. The most typical and pronounced forms of Cheyne-Stokes' respiration were to be met with in alterations of the heart and aorta produced by degeneration and disease. The form of it met with in cerebral disease or injury, and in apoplexy and uremic coma, without any primary engagement of the heart, he regarded as due to direct interference with the respiratory in the medulla, either by pressure or poisoned blood, and the phases of it were never so well marked as in those cases of the affection depending primarily on alterations in the heart. Owing to its dual origin in this way comes the differences of opinion as regards its pathology. As regards its treatment, Dr. Boyd found so much improvement following the inhalation of oxygen in all the cases where disease or degeneration of the heart produced it, that he urged a trial of this remedy in all such cases, and ventured to suggest, from his experience of the remedy, it should be tried not alone in this affection but in all cases where degeneration of the heart existed from any other cause.—*Lancet*.

**PRE-COLUMBIAN SYPHILIS.**—The growing prospect of a world's fair in 1892 or 1893 arouses an especial interest in things Columbian and

pre-Columbian. Possibly among the latter may be classed syphilis. Dr. James Nevins Hyde discusses the question in the *American Journal of Medical Sciences*, and the discussion will, we trust, be continued. America has heretofore accepted too readily the dubious compliment of having bestowed upon civilization the *gro se vérole*. When one recalls what a sty of licentiousness and filth Europe was in the fifteen century, it seems much easier to suppose that syphilis was bred there than that it was imported. Dr. Hyde, however, takes up mainly the question whether the North American Indians of pre-Columbian times left any bones which show evident syphilitic lesions. A good many so-called pre-historic bones showing signs of so-called syphilis have been collected. But it has been shown that many of the remains in the Indian mounds and caves are not pre-historic. Then, so far as the lesions are concerned, it appears to us from the evidence presented that none of them are plainly the results of syphilis. Dr. Hyde reports in detail the results of a microscopical study of two tibiae from Colorado, made by Dr. T. M. Prudden. These showed the presence of a chronic rarefying and formative osteitis and chronic formative periostitis, changes which might be of syphilitic origin, but much more likely were not.

So far as the bones have yet told the story there was no pre-Columbian syphilis. Its presence will have to be established by further bony studies, as well as by historical and philological investigations.—*New York Medical Record*.

**TREATMENT OF PHTHISIS.**—Dr. C. B. Brierly writes to *Pacific Medical Journal*, Will you give the following place in your columns. I have for some time been using the following in tuberculosis: Tinct. catechu, ʒi; morph. sulph., gr. i.; acid carbol. gtt. iv.; syr. pruni virgin., ad. ʒ viii. M. Sig: A tablespoonful every four hours.

It is not Koch's lymph by a long way, but I have found it relieves profuse expectoration, night-sweats and hectic, and in conjunction with appropriate general treatment believe it will help materially to prolong life. I would be glad to learn if others derive any benefit from it. They might try it in the county hospital as an adjunct to the lymph.

**FOR PERSISTENT DANDRUFF.**—Dr. Stephen recommends that we should use a mixture of 3 scruples each of resorcin, olive oil and sulphuric ether, and 6½ ounces of alcohol. To be well shaken and applied to the scalp by a bristle brush, by insinuating it with the locks of hair; the head to be well washed with soap and warm water twice a week.

# The American Practitioner and News

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H. A. COTTELL, M. D., } - - - Editors.

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## LUNG SURGERY.

Some eight or ten years ago certain German surgeons showed, by successful operations on dogs, that considerable portions of lung tissue might be removed without death or great danger to the life of the animal. Since then lung surgery has made considerable advance, and lives have been saved by bold operative procedures, for the relief of disease or the results of injury, which twenty-five years ago would have been lost through timid expectancy. Surgeons now do not hesitate to go after foreign bodies in the track of wounds of the lung, and to open and drain abscesses when they can be located, while in some instances tuberculous cavities have been opened, drained, and kept clean, with some temporary advantage to the patient. Indeed, when *Koch's Tuberculin* was believed to be capable of segregating pulmonary tubercular masses, it was proposed that the surgeon should follow in the wake of the drug, and cut out the insulated diseased tissue before it should have time to necrose and give the patient septicemia.

It was thought that the early death of Tuberculin had dashed these fond therapeutic hopes, and that lung surgery would for a while be brought to a stand-still; but the following,

which we clip from the Record of the 3d inst., shows that the vanguard is up and doing. If the article be truth, the tubercle bacillus will have to shift his point of attack in invading the lung, or find early death at the bloody hands of the surgeon:

EXCISION OF THE APEX OF A TUBERCULOUS LUNG. *La Gazzetta Medica di Granada* reports a case of the successful excision of the apex of a tuberculous lung by Dr. Tuffieri, who prior to the operation had satisfied himself of its safety by a series of experimental operations on the lower animals. Cutting through skin and some fibers of the pectoralis major, Dr. Tuffieri laid bare the intercostal muscles of the second intercostal space, and cutting through these he exposed the parietal layer of the pleura, which he detached from the thoracic parietes. Opening the pleura, he found the lung apex studded with tubercle and slightly shrunken. Round the apex he passed a ligature, which he attached to the second rib, and then excised five centimeters of the tuberculous mass. The patient was, on his recovery, exhibited before the Surgical Society.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—The Fourth Annual Session of the Southern Surgical and Gynecological Association will be held, in the Hall of the House of Delegates, in the city of Richmond, Va., on Tuesday, Wednesday, and Thursday, November 10, 11, and 12, 1891, under the presidency of Dr. L. S. McMurtry, of Louisville. The secretary, Dr. W. E. B. Davis, of Birmingham, Ala., is arranging a full and interesting programme; and the chairman of the Committee of Arrangements, Dr. Hunter McGuire, of Richmond, announces that the facilities for a successful meeting are complete. This Association is essentially a working organization, and is doing a great work in the Southern States. The three volumes of Transactions already issued are highly creditable to any society or country, and have elicited the highest commendation from the medical press in this country and Europe. The meeting in Richmond promises to be the most successful the Association has held. Members of the profession generally are cordially invited to attend.

THE second triennial meeting of the Congress of American Physicians and Surgeons was held in Washington, D. C., September 22, 23, 24, and 25, 1891. Our next issue will contain a condensed account of the proceedings.



## Notes and Queries.

**MEDICAL MISCARRIAGES.**—The accidents referred to will be considered in reference to the publication of medical books and of medical journals, the work of medical societies and of medical colleges and medicine itself. Abortion or miscarriage, using the words synonymously, as most do, is the expulsion of the product of conception prior to viability. A fetus is viable when it is able to live external to the mother. Further, by means of the *couveruse* and *gavage*, a feeble, prematurely born child may frequently be developed into a vigorous, healthy infant.

Referring first to the publication of medical books, four fifths of the entire number are abortions, blighted conceptions, moles, or perishing from myxomatous degeneration of the placenta with consequent arrest of nutrition. They either have no life when expelled from the press, or are so feeble that they only give a gasp and die—they are not viable; or else, though they may have reached the term of viability, they perish because the profession refuses them food.

Of that numerous class of books called quiz compends, those helps for lazy, penniless or penurious medical students, I say nothing except that they interfere with the sale of textbooks, and often contribute to inferior professional attainments. With their slim, limp forms, so that half a dozen might be hidden in coat pockets, they are booklets rather than books, just as pigmies are not men; they live, it is true, but their life is the low life of parasites and not of independent existence.

The number of medical journals issued in the United States is about one hundred and fifty. Every year some are born and others die. Some journals are the property of medical publishers, and have as their primary object advertising their books. A few are issued by medical societies, and a larger number by medical colleges, or at least in their interest. Dealers in drugs and medicines, or in instruments used by the profession, are sometimes proprietors and publishers. A few journals have as their chief object—though this is concealed—the sale of proprietary medicines. Occasionally a doctor, from interest or ambition,

or from a sincere desire to be useful to his fellow practitioners, enters the journalistic field, and is both editor and publisher, or, if only the former, at least gives security to the nominal publisher and apparent owner against loss.

Probably one in ten of medical journals furnishes adequate compensation for the labor expended, and possibly one tenth of the matter published in journals is of real value. It is not saying too much to state that many of these periodicals fail in the true work of journalism. Their chief sins are the publication of useless or of badly written articles, and failures to give a true mirror of medical opinion and practice, and to present clear, full and just notices or reviews of new books. One can count on his fingers, some would say of one hand, all of the one hundred and fifty journals whose book notices or reviews are of any value, or should be regarded as carrying any weight with the intelligent profession. The most of the notices are simply helps for the publisher's advertisements, running thus: "This is a very valuable work, and no physician's library can be complete without it." Or again, "The profession is under obligations to the talented author and to the publisher of this excellent volume." Or once more, "This book is entitled to and will receive the warm commendations of doctors everywhere. The paper, the typography, and the press-work and binding reflect the highest credit upon the great publishing house which issues the volume." Am I right in asserting that such notices are abortions?

The qualifications of a good medical editor are many. He ought to be a practitioner and a practical man, knowing from his own experience just what doctors need most to help them in their daily work, and how it can be presented in the simplest and clearest form. No man should attempt the duties of a medical editor unless he is a good obstetrician, especially as it relates to the diagnosis of pregnancy and the care of premature and feeble infants. Let me remind you that Socrates, in Plato's *Theætetus*, states that he is the son of Phænarete, a brave and burly midwife, and that he practiced midwifery—that he attended men, and not women, that he practiced on their souls

when they were in labor, and that his art had his triumph in thoroughly examining if the thought which the mind brought forth was a false idol or a true birth.

Let me press the analogy a little further. The medical editor ought not only to differentiate between true and false pregnancy, but he should also be able to tell whether gestation has reached the normal term. Unfortunately errors in diagnosis are very frequent. Pseudocyesis is not uncommon; tympanitic distension may be mistaken for pregnancy, and when the delivery takes place, it is simply expulsion of gas. True, brain-babies may be born, but they are too feeble to live unless carefully cared for in an incubator by the editor. An article prematurely reporting a case alleged to be cured by an operation may be kept by the editor until the cure is established. It may be written in execrable English, but the wise editor will put good clothes on the child before allowing it to come before the public. Examples showing the justice of this criticism will frequently present themselves to all who carefully observe periodical medical literature.

Some editors may be ignorant of the characteristics of a child born at term, such as size, weight, and vigor of motion, and consequently present their readers with imperfect specimens of medical reproduction.

A great error is to offer an artificial for a real baby. It sometimes happens that a doctor without any reproductive power whatever, a sort of literary eunuch, decides to write for a medical journal; of course he can produce no living child, and so he makes something resembling such child in form, but not in fact. Another, whose pregnancy ought to last six months, endeavors to give birth every few weeks, evolving from his inner consciousness, no true conception having occurred, something which will keep his name before the profession, and contribute to the vermiform appendix of contributions to medical literature which shall be attached to his obituary. But, laying metaphor aside, cases which never occur are sometimes published in medical journals. Carefully scrutinized they bear intrinsic evidence of being manufactured, not produced. May the day soon come when medical editors will be wise

enough and brave enough to exclude from their literary museums all artificial curiosities. Writers of fiction ought to be compelled to find some other avenue for their activity than medicine, or else have idle pens and silent tongues.

The medical editor may be engaged in procuring abortion. Thus there is a case of true pregnancy, but gestation has by no means reached its term. The editor, with few contributors and printers clamorous for copy, extorts from this pregnant doctor the promise of an article long before he can properly prepare it. It may be a fee, or friendship, or promise of influence, or something of like sort which is the abortifacient, but it does the work.

Medical societies are organized chiefly for the purpose of general professional improvement, but it sometimes happens that they are wrested for this end to the promotion of individual interests, and necessarily abortions follow. It is not always the men who do the most writing and speaking who have the most valuable knowledge and are most helpful to the profession—parrot-like their words may be but the echo of what others have said, and they may bring forth as the results of their own experience truths which have been common property of the profession for years. Frogs are always noisiest in the darkness, and the hen loudly cackles when she has laid only an egg, but makes no such clamor when after far longer trial, weariness, sacrifice, and suffering, she has hatched a brood of chickens. The desire to keep one's name before the profession sometimes leads to the utterance of words without use and the publication of papers without merit. Monographs are published in this country, and quite as much in Great Britain, whose chief purpose apparently is to secure patients, and they are sent, labeled "with the compliments of the author," to every doctor who, by possibility, may be able to furnish a case to the distinguished specialist that has devoted himself so successfully to the study of the diseases of the right or left big toe. It sometimes happens that statistics are presented including so large a number of cases that the story is improbable, if not impossible; for example, I have been told of a physician who reported to a society a



greater number of cases of labor attended by him in a given time than occurred in the entire township in which he resided.

Such contributions are discredited by physicians who take time to reflect; and then, too, there are men whose statements carry no weight with those who know them. We have all read of Lysander, who laughed at those who asserted that the posterity of Hercules ought not to use deceit in war, and said that when the lion's skin will not reach you must patch it out with the fox's. Whatever the descendants of Hercules may do, those of Hippocrates ought to hold the truth always sacred and a lie as utterly profane.

When one with the water of his first amniotic baptism scarcely dry, or another, even though having had considerable experience, has never yet learned how to observe, is giving laws in obstetrics or in medicine, it is possible that each is suffering from imagined pregnancy. So, too, the same condition probably is present when writer or speaker tell of "my method," "my plan," when method and plan were both essentially employed before he was born; "my instrument," when it is the device of an instrument-maker, or is but a trifling variation from one in common use; and when it is stated "I do so and so," in an operation or in the treatment of a disease, while hundreds are doing the same thing without dreaming of originality, or trying to make any one believe in such originality. Would it not be refreshing to have some one read a paper upon castor oil, announcing as an original observation that this medicine is a laxative.

When I look at the long list of papers to be presented to one of the sections at the approaching meeting of the American Medical Association—papers which, if all good, and I know many of them will be excellent, and properly discussed, would keep the section busy for a month—I hardly know whether to rejoice more at the fecundity of the medical brain, or to fear that some of them may be abortions.

In regard to the miscarriages of medical colleges but few words will be said. Such accidents may occur in the best colleges; that is, students sometimes graduate who are utterly unfit to practice the healing art, and so far as

the worst colleges are concerned, are they not themselves abortions?

Has not medicine itself numerous miscarriages? How many sad failures! What utter impotence in some grave disorders! A child is dying with membranous croup, and the doctor is powerless to avert the fatal issue. The poor victims of cancer—so many of them loving and loved, gentle, and refined women—a vast multitude with emaciated forms, staggering steps, haggard faces, on which the deep lines of hopeless, helpless, severest suffering are graven, make a sad procession from which medicine takes away no single one, but all move steadily onward to the grave. If Mattei's discovery proves true, it will be one of the greatest blessings the race has ever had. But most probably this alleged discovery is only a delusion, and on the tomb will be written, miscarriage.

Only a few years ago and sulphuretted hydrogen was to cure consumption. The new remedy was paraded in the newspapers, instrument-makers were busy making the apparatus, in hospitals and in private practice the supposed curative agent was tried, and medical societies discussed it. The craze did not last a year; the method perished; another miscarriage!

A few months since and a great tide of doctors and a greater tide of patients swept to Berlin with the vain hope that consumption was to be cured by hypodermic injection of a subtle medicine. The whole civilized world was ready to shout with joy. But now, though hope is not dead, the light is very faint in comparison with what it was last October.

In connection with Koch's work, the following passage from Coleridge shows that this great philosopher did not believe in the principle which was involved in it. It is quoted, not expecting it to have immediate professional indorsement, but that it at least may be well considered. "The study of specific medicines is too much disregarded now. No doubt the hunting after specifics is a mark of ignorance and weakness in medicine, yet the neglect of them is also a proof of immaturity; for in fact all medicines will be found specific in the perfection of the science."

The subject of bacteriology has, I believe,

undue importance in professional study and teaching. Professors or demonstrators of this department of knowledge are found in many of our medical colleges, and indeed it is proposed that hospital nurses should be taught the subject, made omniscient of bacilli and cocci, and fluent in describing cultures and experimental demonstrations. Is it not possible that we may be found tithing mint and annis and cummin, and neglecting the weightier matters of law? The splendid results obtained in abdominal surgery by Tait, Bantock, and Joseph Price, all working without antiseptics, have not been surpassed—I do not believe equaled—by any three operators employing these agents. A faithful and intelligent asepsis will generally render antiseptics superfluous, and it is in case we can not secure the former that we resort to the latter. The nail-brush, soap and hot water are of more importance than corrosive sublimate and carbolic acid in prophylaxis.—*Dr. Theophilus Parvin, Bulletin of the American Academy of Medicine.*

THE UNPUBLISHED ANATOMICAL WORKS OF GOETHE.—In looking through the Goethe and Schiller Archive, in Weimar, Professor Carl Bardeleben, of Jena, has discovered a series of hitherto unknown anatomical writings by the poet Goethe. Dr. Bardeleben will report on his discoveries in detail in the next volume of the Goethe *Jahrbuch*; meanwhile, however, he has written a brief account of them for the *Anatomische Anzeiger*. The writings in question consist of three manuscripts of considerable length and importance, and a number of short notes. The first of the three in the first draft of the famous essay on the intermaxillary bone, of the year 1784, announcing Goethe's discovery of the said bone in man, the absence of which had hitherto been regarded as one of the main marks which distinguish man from the lower animals. Besides the text, Dr. Bardeleben found a series of illustrative drawings (originally seventeen in number) and a bundle of notes containing the not yet published details of the relevant osteological conditions in a large number of higher and lower mammalia.

One of the most interesting items of the discovery is the letter in which Goethe an-

nounced his discovery to Soemmering, who was just on the point of complying with a call to Mayence. It runs thus: "With the sincere wish that the change of your abode may rebound to your happiness, I send you some attempts at osteological drawings stitched together with a view of laying before you a little discovery which I believe I have made. If, however, I should be mistaken, and tell you something already known instead of a novelty, as I believe, forgive me, for, though my occupations do indeed permit me to cast a glance at nature and at the books which teach us to know it, it is impossible, in my position, to be accurately informed of what others have discovered before us." Not less interesting is the letter in which Loder, of Jena, the only professional anatomist who at once unreservedly recognized Goethe's discovery, congratulated him after reading the manuscript. "I return you," he writes, "the essay most kindly communicated to me with the sincerest thanks. Its perusal has given me so much pleasure, and your precision in anatomical description as well as your insight into the physiology of the part have inspired me with so much admiration, that I quite seriously regretted in my anatomical enthusiasm that you are a minister and not a professor of anatomy. But you will answer me as the Emperor Leopold answered a musician who, after his Majesty had played him something on the piano, threw his arms around his neck in ecstasy, and regretted that he had not become a musician: 'We are not ill off as it is.'"

Besides the essay on the intermaxillary bone, Bardeleben communicates two anatomical essays, both unfinished, but showing that Goethe pursued his studies in comparative anatomy with far-sighted sagacity and with no less an ultimate aim than that of gaining a uniform basis for the conception of the various animal forms. The first of the two has reference to osteology in general. Only the first part, treating of the comparative anatomy of the skull in mammalia, is finished, and Bardeleben believes it to have been written in the summer of 1794. The second essay, treating of the forms of animals, was written at Breslau four years before, and throws much more light on Goethe's conception of the nature of comparative anat-



omy than the first. After careful study of these essays, Bardeleben concludes that the frequent assumption of Goethe having been a pre Darwinian Darwinite must be subjected to strict criticism. "Whether or how far," he says, "one is justified in designating Goethe as a forerunner of Lamarck or Darwin, I do not wish to discuss here in detail. It seems to me, however, after a thorough study of Goethe's works, especially these newly discovered ones, that he did not go beyond an ideal thought or constructed type, and that the idea of man's descent from lower animals, of a real blood relationship among the latter and between them and man, was far from him.—*Boston Medical and Surgical Journal*.

CYTOGLOBIN AND CYTIN. — Dr. Wilhelm Demme, in his inaugural dissertation for the M. D. diploma of the University of Dorpat, discusses cytoglobin, a substance which Prof. A. C. Schmidt had found in various cells, especially in those of the liver and lymphatic glands. The *St. Petersburger Medicinische Wochenschrift* gives an abstract of the paper. It is somewhat difficult and takes some time to separate this new albuminoid, which is decomposed by boiling and by acids. The author first deprives the cells of various extractive substances by placing them for about nine days in alcohol; the residuum is then dried and rubbed to a fine powder and mixed with thirty times its volume of water, which, after standing, dissolves nearly all the cytoglobin. The quantity of cytoglobin is about three per cent of the lymphatic gland pulp, or nearly 27.8 of the dry residuum. Cytoglobin is distinguished by the following points: It is a white powder, soluble in water but insoluble in alcohol and ether. The opalescent solution gives a deposit with alcohol without coagulating. It decomposes peroxide of hydrogen easily with effervescence. Acetic acid and diluted mineral acids separate it into a substance easily soluble in water containing HCNS and P, and an albuminoid, insoluble in water, called präglobin, which, like globins, dissolves in neutral salts and alkalies, but which is distinguished from all known albuminoids by being insoluble in excess of acetic acid, even when boiled. The

proportion of these substances is as 43 to 57. Boiling produces a milky opalescence in cytoglobin solution, but the decomposition appears to be different from that caused by acetic acid. The addition of artificial gastric juice containing hydrochloric acid destroys the albuminoid in cytoglobin solution by decomposition, but the whole mixture is but little digested in twenty-four hours, even if kept warm. Artificial digestion with Kühne's dry pancreas had not any effect. The substance, which is soluble in water, has no albuminoid reaction, but contains fifteen per cent of nitrogen. The author adds the results of the elementary analysis of the cytoglobin and of the two substances into which it breaks up. A second dissertation in the same university, by Dr. Adam Knüpfer, follows up the foregoing research. This observer found cytoglobin to be ferruginous, and showed that the soluble substance produced by decomposition with acetic acid is again separated by the action of alcohol into two substances, which are, however, as yet by no means very well made out, but they both contain N, S, P, and Fe. The chief part of this dissertation is, however, taken up with the examination of the substance called by A. Schmidt "cytin." This is the insoluble cellular substance which forms the residuum when all substances soluble in alcohol have been removed by extraction after the cytoglobulin has also been removed by the action of water, and a ten-per-cent solution of chloride of sodium has taken up all traces of globulin. Cytin was prepared by the author from lymphatic glands and liver cells, but there is no doubt that it exists in all other cells in the body. The following are its characteristic reactions: It is soluble in water, alcohol, and ether, and readily so in a boiling saturated solution of caustic soda, which, however, produces decomposition. The alkaline solution is neutralized by acetic acid, and an albuminoid is deposited which is insoluble in a solution of chloride of sodium and in acetic acid, while the solution retains a substance easily dissolved in water and giving no albuminoid reaction. The proportion in which these two substances exist is as 67.5 to 32.5. Concentrated acetic acid partially decomposes cytin, and the solution shows an albuminoid reaction; this albu-

minoid substance is soluble in acetic acid, but not in a solution of chloride of sodium. Cytin easily decomposes peroxide of hydrogen. An addition of 0.2 of hydrochloric acid causes the cytin to lose a little of its albumen, which is digested by pepsin. From his own experiments and those of Dr. Demme the author concludes that the cells contain either no completely formed albumen at all or only slight traces of it. The most important contents of the cells are extractive matter, to which category lecithin belongs, cytoglobin and cytin, which by decomposition primarily produce albuminoids. The preparation of these two substances has certainly enriched physiological chemistry with the knowledge of two new chemical factors, possessing a much more complicated composition than ordinary albuminoids, and clearly taking a higher place in the organism than the latter as forming a part of the cellular contents.—*London Lancet*.

#### THE PRESENT ESTIMATION OF TUBERCULIN.

The present opinion of Koch himself as to the value of tuberculin formed the basis of some remarks by Prof. Ehrlich at the recent Congress of Hygiene and Demography. He followed immediately after a joint paper by Drs. Metschnikoff and Roux on the changes that took place around the tissues of tubercle bacilli, in which they indicated the difference in the reaction of tissues to tubercle bacilli when the disease was going to run a favorable course and when the animal was going to succumb to the disease. The process of recovery consisted of concentric rings of hard and inflammatory tissue around the bacilli, which eventually led to their absorption, the inflammatory tissue itself finally undergoing a process of calcification.

It is the promotion of this process, according to Ehrlich, which must be sought for in the use of tuberculin. The original opinion, that necrosis of the tubercular tissue and consequent discharge of the bacilli, as seen after the injection of tuberculin, was desirable, that is, curative, had been shown to be erroneous, in fact, this necrosis was distinctly harmful, and to be carefully avoided. He said that the results obtained were exceedingly favorable, and

that most of those in which he had failed to obtain equally good results had failed because he had used too large doses of the tuberculin. The principle of cure rested in the local effects which tuberculin exercised on the specifically affected tissues; slight and often rapid stimuli would give rise to cicatrization of the tuberculous centers, so that the essence of this method of treatment was to retain as long as possible the specific excitation of the tissues and not to do away with these, as was the case where large doses were used. Wherever successful results had been obtained they had all been got by the use of repeated minute doses of tuberculin, which was only very gradually increased in strength. It should be specially noted that the pathological signs found as the result of the action of tuberculin were always produced by large doses.

The opinion expressed by others present on the value of tuberculin did not seem to be as hopeful as Ehrlich's. Prof. Cornil and Drs. Bardach and Ponfick were agreed that tuberculin was a heroic and dangerous remedy, about which we as yet knew little, and which was therefore still in the experimental stage. It also seemed to be the general opinion that there was danger of setting up generalization of a tuberculosis that had hitherto been localized. As the results of his own experiments, Dr. Hunter had succeeded in isolating principles quite different from those mentioned by Koch. They were three: Those which produced fever, but set up no local reaction; those which gave a local reaction, but no fever; and those which set up neither fever nor local reaction, but which had a distinct remedial effect.

In summing up, Sir Joseph Lister hoped that in time we should all be able to obtain the wonderfully satisfactory results that had been described by Prof. Ehrlich on Dr. Koch's behalf.—*Boston Med. and Surg. Journal*.

**BURIAL OR CREMATION.**—The advocates of cremation of late have met with much encouragement. Several influential societies have declared in their favor. They have been strongly supported by voice and vote at the meeting of the British Medical Association, and in the Public Health Section of the Congress on Hy-



giene. The Church Burial Reform Association, through its representative, assures them of its tacit sanction. If not for, it is not against cremation. Those who advise and practice the latter method, however, are not equally complaisant toward the less radical group of reformers. It is true that they abjure all claims to an exclusive right for their system, and it would indeed be impossible for them to maintain any other attitude. They are not wanting, however, in the kind of exclusive pretension which commonly distinguishes the promoters of new and ambitious customs. "Earth-to-earth" burial with them is "a feeble remedy for a great evil," namely, that of decay under the present insanitary conditions. They assert that unless it is displaced by their own more drastic means of treatment it will be impossible to stamp out infectious diseases. It must be allowed that even these extreme statements are not without some foundation in fact. Nothing, indeed, is more true than that burning entails the most rapid and absolutely perfect destruction of all organic matter and of every form of infective germ. It may be true, likewise, that the process is equally free from all risk of hurtful consequences to the living. All this, however, does not prove that the final disorganization can not safely be carried out by gradual subterranean changes, or that the funeral pyre, though it were in universal use (which is practically impossible), would insure the extinction of morbid contagia. The sources of these, it must be remembered, are not found only in the graves of their victims. At least as much may be said for burial as for the substitute method. Decay is, after all, a process as truly natural as birth, growth, and death. It has always had its place in the world's economy. Air, sea, and earth, each of them in virtue of a definite chemical composition, have from all time received and changed into pure and productive elements the bodies which at first were formed of their constituents. They have carried out this work with entire success, and perhaps with less injury to living matter than is commonly supposed. Their capacity for the purpose, as far as we know, is unlimited, if only the conditions needful for their activity be duly respected. It may seem conservative on our

part to ask that their service be not suspended, but aided by the absence of human interference; in a word, that burial should continue, and that we bury, not a coffin of remains, but a body. It may appear more scientific to take the work out of nature's hands and to give it over to an engineer. For us, however, there is about this change of management an artificiality which is not compatible with the history of success in other movements of the same magnitude. We may depend upon it, that if both systems are permitted to continue side by side, the better will ultimately prove its quality, and so far we can see no reason to distrust the power of mother earth to reorganize what is visible of death without corrupting life. Only let her work in the seclusion of wholesome distance and without let or hindrance.—*London Lancet*.

WORDS OF WISDOM BEGOTTEN BY EXPERIENCE.—In an address, entitled Forty Years a Doctor, which was delivered before the Society of Alumni of the Medical College of Virginia, April 9, 1891, by Dr. William W. Parker, of Richmond, and published in the Virginia Medical Monthly for June, some of the difficult duties, sorrows, and joys of medical practice are well presented, and his advice to young physicians older ones would do well to ponder. Among other things he says: "Don't be conceited. Sensible patients don't like conceited doctors. Don't undervalue your brother's observations when they don't accord with your own. Read the journals and other books as well as read your patient. If you can't give a sensible or plausible reason for your opinion of a case, regard it (the opinion) as of doubtful value. Don't forget you can both cure and kill. Never desert a case you undertake so long as your advice is followed, whether the progress be satisfactory to you or not. Don't forget that some diseases are necessarily chronic. Don't hesitate to get help by consultation if you are in a dilemma; it is plainly your duty. Don't get discouraged if your patients die. All doctors lose patients. Those who never lose them have none to lose. . . . Never get frightened and lose your head. The cooler you are the wiser and safer

you are. A highly nervous man is not fit for a doctor, nor a lazy man, nor a heartless man." His closing words were: "I hope, my dear young friends, you will never see the day you will not have some poor patients. A church without poor members and a doctor without poor patients will never be recognized in heaven. If you will keep your eyes wide open and observe closely, it may be the happy lot of some of you to witness phenomena of disease that will not only immortalize your name, but what is far better, confer untold blessings upon mankind. As you know, the field of observation is boundless and the need of increased knowledge is pressing. We know but little. Let us strive to know more. Don't be too much a slave to other men's opinions. If you will in early life take the 'Great Physician' as your pattern, you will live well and die well."—*Pacific Medical Journal*.

*Editors American Practitioner and News.*

In a recent issue I find a report of the discussion of a paper, read by Dr. Lapsley before the Central Kentucky Medical Association, on the subject of the Etiology and Treatment of Dysentery. The secretary not being well, I suppose his memory was a little at fault, as I find in his report he failed to get straight my remarks upon the subject. Will you be so kind as to publish this statement in your next issue, as my remarks were so foreign to what I am made to say in that report. I stated in the discussion that dysentery was purely a local disease, due to a specific micro-organism, and curable by irrigation of the bowel with hot water, followed immediately by irrigation with a hot solution of bichloride of mercury, 1 to 5,000; the irrigations to be repeated from four to six hours apart as indicated. It is true I opposed ipecac, for the etiology and pathology of the disease contra-indicate its use. Ipecac does nothing more in dysentery than to unload pent-up secretion and produce a free flow of bile, which I said could be accomplished by a purgative without the nausea and inconvenience of ipecac. But I did not recommend a combination of gray powder and opium, and said nothing about ptyalism. I did say an opiate was allowable in conjunction with the irriga-

tion of the bowel, and a single purgative dose of calomel followed by a saline cathartic, when there was a heavily-coated tongue, was frequently a good prescription.

J. F. PURDOM, M. D.  
LOUISVILLE, September 3, 1891.

It is not more than a hundred years ago that medicine claimed to have been a liberal calling, an intellectual pursuit, and even to-day its position as such is very inadequately recognized by the mass of educated men. Now I venture to say that, as medical education is now given in the best schools, no profession has a better right to claim the title of an educated, intellectual calling, and no men have a better right to demand recognition as intellectual men, as men of trained reasoning faculties, than the physicians themselves. I see, in my position at the head of the University, which includes the department of liberal arts and several professional departments, that the educated community does not recognize this. And I exhort you, gentlemen, in all your various fields of influence to do your utmost to establish this just claim of the medical profession to the position of an intellectual calling, and to establish the claim of this great body as a body of highly trained men, who use to the best advantage for the community the reasoning faculty, the scientific power of the human mind.—*Charles W. Eliot, President of Harvard University.*

**HYPEREMESIS GRAVIDARUM.** — Kalténbach (Halle) has read a valuable paper on this subject, excluding from consideration all complicating affections that excite vomiting in the non-pregnant state. In hyperemesis of pregnancy in its narrow sense *post-mortem* appearances in the sexual and digestive organs are negative or non-characteristic. Uncontrollable vomiting of the pregnant, like the lighter forms of this affection, is, in his opinion, of nervous origin. The excessive increase of the symptom is not to be ascribed to definite pathological changes in stomach or uterus, but to a peculiar condition of the nervous system, in which reflex irritability is increased and reflex inhibition is diminished; in short, it results from functional neurosis—from hysteria. In a case observed two years ago, in the Halle clinic,



an extremely hysterical grvida was cured of her vomiting from day to day by a simple daily washing out of the stomach, after it had been suggested to her that now the cause of her sickness had been removed, and she was destined to vomit no more. Since that time further conclusive cases had been reported to the reader. The reference of hyperemesis to hysteria clears up many hitherto dark points in the etiology of the affection—the inexplicable sudden cessation of the vomiting in consequence of any psychical or somatic influence.

Anomalies of uterus and stomach have only the significance of favoring causes in addition to the neurosis. Should further observation prove the frequent or constant connection of hyperemesis with hysteria, our therapeutic ideas must be thereby greatly influenced. We shall be more reluctant to resort to artificial abortion than heretofore. We shall treat the fundamental neurosis, and especially seek to impress the patient psychically. Already good results have been obtained with anti-hysterical measures. Frequently the patient will have to be removed from unfavorable surroundings in order to be treated successfully.—*Boston Medical and Surgical Journal*.

**MISTAKES ABOUT BEARINGS.**—Mistakes in orientation, sometimes of the most puzzling character, are usually the result of some incidental and temporary bewilderment, and may under peculiar circumstances overtake any one. Some instances have been cited by Sir Charles Warren in which they are chronic and may afflict even the best informed persons. Erroneous conceptions formed by children as to distances and positions may grow up with them undetected till near maturity. Then, when the discovery is made, it is too late to apply any better remedy than to recognize the error and make allowances for it when possible. Cases are cited of a person whose ideas of certain parts of London were all inverted; of another, who placed Paris north of London; of thirty well-informed young men, "about eighteen were under the impression that, while the sun rises in the east, the stars rise in the west, from having learned that the sun has a proper motion among the stars; and the author

believes there are few educated men who have not grown up with some curious errors with reference to geographical facts, which have bothered them all their lives, and which they have found it to be impossible to get rid of." This defect may account for some of the accidents that occur on railways and shipping.—*Boston Medical and Surgical Journal*.

**OBITUARY.**—At a called meeting of the Owensboro Medical Society, held at the office of Dr. J. F. Kimbley on the 27th inst., at 1:30 P. M., Dr. Kimbley was called to the chair and Dr. J. P. Heavrin made secretary. Drs. Tyler and Hale were appointed a committee to draft suitable resolutions upon the death of Dr. B. H. Hobbs. The committee presented the following resolutions, which were unanimously adopted:

**WHEREAS,** In the providence of God our esteemed associate and fellow-citizen, Dr. Hobbs, has been removed from our midst by death,

**Resolved,** That in the death of Dr. Hobbs the community has sustained the loss of a good citizen and a skillful and most kind physician, and this Society an earnest and faithful member.

**Resolved,** That the members of this Society most deeply deplore the death of Dr. Hobbs, and that we, in the name of the profession, tender our sympathies to his family in their deep bereavement.

**Resolved,** That these resolutions be spread upon the minutes of this Society, and a copy of the same be sent to his family, and also to the American Practitioner and News for publication.

Burr. H. Hobbs, M. D., was born July 29, 1824, in Nelson County, Ky. Dr. Hobbs graduated from the Transylvania University, of Lexington, Ky., in the year 1849. He was a surgeon of considerable note during the late civil war, and served in the Confederate army. He was an original member of the McDowell Medical Society, also an original member of the Owensboro Medical Society, at one time its president. He died, after a long illness, at the age of sixty-seven years. J. P. HEAVRIN.

OWENSBORO, KY., September 27, 1891.

**THE SENSE OF TASTE IN THE LARYNX.**—For many years it has been known to histologists that the specific end-organs of taste, namely, the taste-bulbs, occur on the posterior or inner surface of the epiglottis, but up till now the physiological proof of the existence of the sense of taste in the epiglottis has not been

forthcoming. Michelson, under Langendorff's direction, made a number of experiments which show that the inner surface of the epiglottis is endowed with taste. A Schroetter's laryngeal sound, tipped with a solution of quinine or saccharin, was introduced into the larynx, and the drop of the sapid substance was cautiously brought into contact with the inner surface of the epiglottis. Positive results were obtained, which were controlled by the sensation—electrical taste—known to be produced by electrical stimulation. It seems, therefore, proved that a part of the nerve fibers passing to the larynx are nerves of taste.

ASTASIA-ABASIA.—In the last number of the *Archives de Neurologie*, Dr. Bonamaison describes two new cases of the disorder to which this cumbersome and unsuitable name has been applied. The first is that of a girl of fourteen, whose family history showed the presence of gout, rheumatism, and asthma in the grand parents, migraine in the mother, and asthma in a brother. Nothing unusual had manifested itself in her condition until the year before she came under observation, during which she had suffered from gastric pain, rachialgia, and articular pains regarded as rheumatism by the parents. An attack of this so-called rheumatism preceded the onset of the condition for which advice was sought. For two months she had been unable to stand or walk. The lower limbs presented no abnormality, except a certain degree of hyperesthesia. The reflexes were unaltered, and there were no contractures. As she lay in bed she could move the limbs perfectly, and muscular power was only slightly if at all impaired. She dragged herself about on her hands and knees; she could not walk a step, and fell as soon as she was raised from the ground unless she was supported. She completely recovered under suitable treatment, but had a relapse subsequently to an attack of influenza, from which she made a good recovery and has since remained well. The second patient was a young woman, aged nineteen, whose parents were cousins, and whose brother and sister were neurotic, but who had enjoyed good health up to the age of sixteen. At this time she began to suffer from convulsive attacks,

apparently hysterical, and to those, fourteen months before she came under observation, was superadded a condition of inability to stand or walk. She at times suddenly and completely recovered from this, but relapsed again. Her condition, in short, was exactly comparable to that of the first case. The reflexes were normal, and there was in the limbs no sign of organic change. Under treatment the attacks gradually disappeared, while the condition of the limbs varied from time to time. They were occasionally completely powerless, and at other times practically normal. We have formerly remarked on the undesirableness of distinguishing by peculiar and somewhat meaningless terms the more or less indefinite varieties of such a protean malady as so-called hysterical or functional paraplegia. The views entertained by different neurologists as to the nature of this condition are so various that it seems a pity to still further complicate matters by such a procedure, for we still fail to see in what the essential difference between so-called astasia-abasia and ordinary functional paraplegia consists.—*London Lancet*.

THE KNEE REFLEX IN EPILEPSY.—Dr. Vasilieff, though not the first to notice the fact that epileptic attacks exercise changes on the knee-tendon reflex, has made a slight addition to our knowledge on the subject by a series of experimental investigations, carried on in the laboratory with the help of Marey's chronograph and Bekhtereff's reflexograph, the subjects being dogs thrown into epileptic convulsions by electrization of the cerebral cortex. In the tonic period of the attack it was found to be impossible to excite the reflex, owing to the rigid state of all the muscles; in the succeeding clonic stage, however, the phenomenon was well marked. After a violent fit, accompanied by loss of consciousness, the tendon reflex was usually either entirely absent or very deficient in strength, the change occurring within a few seconds at latest after the clonic spasms had ceased. The length of time during which the reflex was absent varied from one to twelve minutes, and it did not regain its normal force for a good while, in some cases not for half an hour or more. Sometimes, however, after it



had become normal, a temporary increase in the force of the reflex was observed. It has been noticed by Dr. S. N. Danillo, too, that the knee reflex was absent in dogs in which epileptiform fits had been produced by absinthe. Dr. Vasilieff thinks that these observations may be of value in diagnosing true from spurious epileptic attacks. His paper, as well as those by Prof. Bekhtereff and Dr. Danillo, dealing with the subject of the knee reflex, are published in the *Vrach.*—*Ibid.*

THE NEW INSTITUTE FOR INFECTIOUS DISEASES at Berlin was formally opened on Monday, August 17th, in the presence of Prof. Koch and his assistants. The first six patients, all suffering from disease of the lungs, were admitted the same evening. The head of the clinical department is Prof. Brieger; that of the scientific department the well-known hygienist, Dr. Pfeiffer. Drs. Petruschky, Frosch, and Behring are among the assistants. The attendants in the clinical department are "Maerkische Schwestern" (Brandenburg Sisters), who devote themselves solely to the care of the sick without any special religious bias.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The nineteenth annual meeting will be held at Kansas City, October 20 to 24, 1891. The Local Committee of Arrangements announces that all the railway passenger associations of the country have granted a one-and-one-third-fare rate for the round trip on the usual certificate plan, that is,

1. Procure a certificate of attendance from the agent at the starting-point by paying full fare to Kansas City.

2. Have the certificate of attendance signed by the proper officer of the Association at Kansas City. This certificate will then procure return ticket for one third fare. All the leading hotels of Kansas City will give special rates to delegates. Arrangements are being perfected for an excursion into Kansas, as one of the features of the entertainment of the Association. For any information as to the meeting, address Dr. E. R. Lewis, Chairman, or Dr. Joseph Sharp, Secretary Local Committee of Arrangements, Kansas City, Mo.

SHOCK FROM AN ELECTRIC WIRE.—P. R., of Weston, age twenty-two, weight one hundred and fifty pounds, a well-developed, muscular fellow, while driving home from Waltham, Saturday night, August 3d, had an encounter with a "live electric light wire." His horse's feet became entangled in a wire that had broken away from its pole connection and fallen across the street.

The horse finally extricated itself from the wire, and in so doing removed some of the insulating material, in sections of one inch—two or three in all. R., in his attempts to remove the wire, probably seized it at one of the unprotected points, thus forming a perfect circuit. He was immediately thrown a distance of ten feet against the curb-stone, and then instantly to the middle of the street again, swaying back and forth three times. His hands were in contact with the wire about three minutes, when from some unknown cause the current suddenly broke, and he dropped to the ground unconscious, remaining so about ten minutes, then in a semi-conscious state fifteen minutes, after which he was removed to my office.

I first saw him two hours after the accident. Pulse 100, strong and bounding; temperature 100°; pupils dilated; headache; nervous and irritable; reflexes increased. Headache accompanied by insomnia continued for three days, after which time rapidly disappeared, and he resumed his work as railroad section-hand without any inconvenience, apparently none the worse from the shock. The palmar surfaces of both hands and arms were blackened from tips of fingers to a point midway between wrists and elbows, and were sensitive to touch, and on the least irritation the muscles would violently contract—disappearing on the second day.

Two days after accident the company's agent effected a settlement with him, which did in no way modify the convalescence, as he was totally ignorant of the results of coming in contact with a "live electric wire" or electricity in any form.

The current was from a fifty-light Thomson-Houston arc machine, ampère current 6.8; the voltage was about 2,100 on that circuit at that time, it being a new three-braided

electric-light wire, did not consequently allow the electric current to escape through. It being a wet night, and raining heavily at the time, was undoubtedly the cause of his sustaining such a severe shock. The voltage passing through his body is wholly problematical; and it is my opinion that, had he been acquainted with electrical appliances and the power of electricity, the shock would have been more severe and lasting, possibly terminating fatally. Treatment: quiet, rest, bromide potash.—*Dr. F. W. Jackson, Boston Medical and Surgical Journal.*

THE OCTOBER NUMBER OF THE ALIENIST AND NEUROLOGIST contains the most complete and practical paper on the subject of "Traumatic Neuroses and Spinal Concussion" ever written; the best paper extant on "The Insanity of Torquato Tasso;" an exhaustive illustrated study of "Criminals and their Cranial Development;" "The Weight of the Brains of the Feeble-Minded;" "A Study of the Heredity of Inebriety;" besides the usual Selections, Editorials, Hospital Notes, Reviews, etc. The respective writers are Guiseppe Sepilli, Italy; W. W. Ireland, Scotland; G. Frank Lydston, Chicago; A. W. Wilmarth, Pennsylvania; and T. L. Wright, Ohio.

THE next meeting of the Central Kentucky Medical Association will take place in Lancaster on Thursday (and not on Wednesday, as usual), October 22d, at 10 o'clock A. M. The subject for discussion will be "Chronic Bronchitis; its Pathology and Treatment." Dr. John B. Cassell, of Burgin, chairman.

The Section of Anatomy, Surgery and Surgical Pathology will be opened by Dr. J. G. Carpenter, of Stanford.

Those intending to present voluntary papers will please notify the secretary before the hour of meeting.

STEELE BAILEY, M. D.,

STANFORD, KY., October, 1891.

Secretary.

DR. O. W. HOLMES celebrated his eighty-third birthday on August 29, 1891. During the summer, we are glad to know, Dr. Holmes has been in remarkably good health and spirits. He is said to be just as old as ovariectomy.

## SPECIAL NOTICES.

**EUROPHEN.**—This new antiseptic medicament, designed to replace iodoform, is obtained by the action of iodine upon isobutylorthocresol. Its pharmacology and bacteriology have been studied by Siebel, and its therapeutic actions by Eichhoff.

Euophen is an amorphous, yellow powder, exhaling a slight odor resembling that of saffron. It is insoluble in water and in glycerine, and is more soluble than iodoform in alcohol, ether, chloroform, and the oils. Euophen adheres better than iodoform to the skin and to open wounds, and an equal quantity of it by weight will cover a surface five times greater.

This iodine of isobutylorthocresol is not toxic. Dogs were found to take two to three grams of it with impunity, and the human organism will bear one gram of it without unpleasant phenomena save a slight feeling of weight in the stomach. The urine of patients who had absorbed Euophen did not contain iodine.

Eichhoff employed it successfully in dressing both hard and soft chancres. He used it as a powder, and also in the form of a 1-per-cent or 2-per-cent ointment. He furthermore employed it successfully in hypodermic injections for syphilitic patients suffering from the secondary and tertiary symptoms of syphilis. These injections consisted of one gram of Euophen to one hundred grams of olive oil, and of this, one half to one cubic centimeter was injected daily in one dose.

Eichhoff also employed Euophen in varicose ulcer and ulcerative lupus, as well as in eczema, psoriasis and favus, in all of which it proved to be efficacious.

Ointments containing 1 per cent to 2 per cent of Euophen are as strong as need be used. Five-per-cent ointments caused a certain amount of irritation. *La Semaine Medicale*, July 29, 1891; *Repertoire de Pharmacie*, August 10, 1891.

JUDGING from Armour & Company's extensive advertising and sampling, it would appear as though they don't care how many physicians know that they prepare a line of elegant digestive ferments. Everybody already knows, we might say, that Armour & Company produce their own raw materials, hence the usual deterioration during transportation is avoided, with the obviously important consequences of entire absence of toxic principles in their products, and their unusually high tests. Armour & Company state that they have every advantage necessary to their being headquarters in the line of digestive ferments, as they are already in Extract of Beef, not only in quality but in price. For further information we refer our readers to advertisement in this journal.

**A NEW FOOD.**—Lacto-Cereal Food is a new product recently put on the market by Reed & Carnrick, of New York.

It is prepared from milk, cereals, and fruit, and is not only palatable, but highly nutritious and easily digested.

Great progress has been made in recent years in making foods to meet various indications. The Lacto-Cereal Food is especially prepared for invalids, the aged, and for convalescents who need a palatable, digestible, perfect food for building up waste tissues at the least possible expense of digestive effort.—*Dietetic Gazette.*



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.

[NEW SERIES.]

LOUISVILLE, KY., OCTOBER 24, 1891.

No. 9.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### SOME PRACTICAL POINTS IN THERAPEUTICS.\*

BY JOHN A. LARRABEE, M. D.

*Professor of the Principles and Practice of Medicine, Hospital College of Medicine, Louisville, Ky.*

During the last few years military reunions and camp-fires, commemorative of hard-fought battles, have become popular with American people. Friend and foe around these camp-fires have buried forever their animosities. Comrades, long separated, have been again united. Upon beautiful meadows and shaded woodlands, upon rugged mountains and by the side of deep-flowing rivers, now free from the soil of carnage, these old soldiers have recounted to each other their deeds of valor and victory. Just so, it seems to me, we meet around our several hearthstones and recount the victories which we have won in the great battle which we continue to wage against disease and death. Actuated by no unworthy motives, inspired by no jealousies or rivalry, urged on by noble ambition, we share alike our successes and failures, readjust our weapons, and, strengthened by our conference, return to the fray.

The brilliancy of successful surgical operations and the report of cases by our eminent laparotomists have so dazzled our eyes that the "medicine men" have been quite forgotten. The glitter and pomp of our generals would be of little worth but for the dust-brown

ranks of our common soldiery. As a high private in the rear rank, I have concluded to call your attention for a few moments this evening to the subject of Therapeutics, thereby camping upon the trail of my predecessor, Dr. Bailey, whose paper elicited so good a discussion at our last meeting that I believe the appetite of the Society for some of the old, common-sense notions in medicine is not yet satiated.

The first point in therapeutic interest to which I call your attention is accology. It is a very common therapeutic error to accept as arbitrary the doses laid down in the text-book for the true physiological action of any drug. By so doing we are liable to substitute the toxical for the therapeutical effect. A careful observation will oftentimes reveal that the effect produced by a given medicine is rather the resistance of the system to the invasion of an enemy than the true physiological action of the medicine.

Without a constant mental reference to the underlying principles of rational therapeutics, it is an easy matter to fall into the swim where both profession and laity frolic together. The writer has often seen antikamnia, anti-febrin, and phenacetine prescribed for headaches due entirely to overloaded stomachs, the evacuation of which by an emetic would have been both relief and cure. As an analgesic there is but one drug, opium. When given to allay pain, toxical doses are necessary. In fact, it may be said that the only guide to dosage in any given case is the extent and duration of the relief afforded. Pain is a complete physiological antidote. How different is the true therapeutic action of the same drug, or its alkaloid, given in very small fractional doses; for example, a drop of laudanum, or  $\frac{1}{60}$  grain of morphine in an ounce of acidulated water every

\* Read before the Louisville Medico-Chirurgical Society, October 2, 1891.

hour, after *post-partum* hemorrhage, in the beginning of meningitis or typhoid fever. Opium thus given becomes a curative and sustaining agent where any thing like full dosage would be not only prejudicial but highly dangerous. What can be more charming in pernicious intermittent, choleraic collapse, anemic syncope than minute doses of morphina and atropina hypodermatically administered?

Hypodermatic medication in infantile practice, in which I modestly claim originality, has been to me a source of gratification, although the hesitancy of my colleagues in adopting more generally these suggestions has been a little surprising. In this method I have been accustomed to reduce the ordinary tablet with reference to the morphine alone. By so doing the atropina has been reduced to one three-thousandth of a grain. I have repeatedly seen the characteristic action of the belladonna. I mention this fact in order to show how small a dose will act physiologically, and consequently therapeutically. A few weeks ago, in a case of typhoid fever gravior, with deep delirium, "Cheyne-Stokes" breathing had been marked for several hours; rhythmical respiration was restored in six hours by one-drop doses of tincture of belladonna. It is a well-known fact that this symptom once ingrafted upon a patient heralds coma in twenty-four hours and death in a few days. Ergot is an agent which is frequently given in typhoid fever for controlling hemorrhage. It is difficult to conceive of a more dangerous practice. Two- or three-drop doses of the fluid extract, largely diluted, is the plan. Digitalis is a drug much used by the profession in general, but, notwithstanding that so much has been written, it is more often misapplied than any other. In cardiac debility, in those cases so familiar to us all, of passing or temporary debility, "heart failure," which occurs during the progress of acute diseases, it is powerful for good or harm, according to the judgment or preconceived ideas of the physician who administers it. I have seen almost immediate death from twenty- to thirty-drop doses in typhoid fever; and in three instances of "mania-a-potu" I have seen the patient dead from one-dram doses, and yet the

doctor, whose patient it was, had the sanction of an article written a long time ago by a "Mr. Jones, of Jersey." In cases of valvular disease, patulency with regurgitation, there should be no dose of digitalis to the experienced physician. Carefully he feels his way along with his finger on the pulse and his ear over the heart, just as does the skillful engineer, with his hand upon the lever and his eye upon the track. There is little danger here in gradually reaching large doses, provided the physician will quit when suitable compensation is established. Such dosing in atonic failure of the fever heart or pneumonia heart would kill directly. One or two drops in a wineglass of water is the therapeutic dose in functional disturbances.

The popular error in the profession in regard to digitalis is, that it is regarded as a cardiac stimulant. The fact that it does not act upon the heart, except in so far as it affects the vasomotor system, causing contraction even of the ulterior arterioles, thereby lessening their caliber, does not seem to be fully appreciated. The heart is strengthened by this arterial recoil, just as the narrowing of the nozzle of a hose strengthens the stream from the hydrant. If, therefore, the heart muscle be weakened by disease, for example, in typhoid fever, from attenuation and hyper-pyrexia, this sudden increase of pressure will at once arrest its action. In other words, if the hydrant be rotten, compression of the hose will break it. As the heart is nourished by this arterial recoil during its period of diastole, and as compensatory hypertrophy is the only possible way of overcoming the organic defects of valvular patulency, it follows that digitalis is the only therapeutic agent for such lesion in the left side of the heart.

A careful study of the physiological action of a heart, and an equally careful study of the action of digitalis, will, it seems to me, convince any one of the danger of its use in typhoid fever or diphtheria. Strophanthus is a safer drug than digitalis, and cactina the safest of the three. Each of these drugs, however, has its especial province, which I have carefully noted at the bedside. For example, when organic mischief is to be overcome by compensation,



digitalis alone should be thought of. When the accentuation of the pulse is imperfect, without organic effect, strophanthus, spartein, and caffeine are the medicines. When there is a want of rhythmical action, debility of the ganglionic centers, stechenow, the cactus grandiflora is the remedy. It is a *donum dei* in the so-called "tobacco heart."

I certainly hope that no one will misconstrue my meaning when I say that the doctrine of *smaller doses* and *less medication* has had a beneficial effect upon therapeutics. In all extremes the middle ground is the line of truth and safety. It is necessary to steer between the seductive Scylla of Hahnemannian potencies and visionary charlatanry on the one hand and the frowning Charybdis of toxic medication upon the other. Homeopathy, as taught by Hahnemann, has had its day, and it has also had its uses. Born in an age when disease itself was less dangerous than the doctor, it at least counseled conservatism. It is doubtful if there could be found a single physician who, to-day, even under the trade-mark of homeopathy, practices the doctrines laid down by its eccentric founder.

The therapeutics of typhoid fever must be admitted to afford a sad picture of the uncertainty of medical knowledge as well as the credulity of many honest practitioners in the vaunted efficacy of drugs. I believe that lives are being sacrificed every day by the careless administration of anti-pyretics. A retrospect of my own practice before the introduction of the chinoline group warrants the conclusion that my mortality list has not been lessened by their use. I revert to a report, made some ten years ago to this Society, of forty-two cases of genuine typhoid fever, with the loss of a single patient. Since the first day of August I have treated twelve successive cases of typhoid with recovery in each instance. The majority of these were of the type known as "gravior;" four were in children, and therefore of the so-called mild type, lasting, however, the usual time, and one abortive, that is, defervescence beginning on the fourteenth day. In all of these cases I have relied upon the hydrotherapy with the expectant treatment. The best result obtained in this country has been a mortality

of ten per cent in three hundred and seven cases, in the treatment reported by Flint, without any medication at all. Under the use of the mineral acid with plenty of water, the plan of Dr. Murchison, the same mortality has been obtained. A celebrated French authority, in summing up the treatment of typhoid fever, says "that all that is necessary in a case is to have a small bottle of laudanum, a little larger bottle of turpentine, and a barrel of buttermilk." The statistics of the German authorities under the water treatment are extremely gratifying. At Basle the mortality is quoted at three and a half per cent.

The light thrown upon the digestive process by the experiments of the German schools, and especially those conducted by Prof. Ewald, are, in my judgment, of great practical importance, both in diagnosis and therapeutics. It has been shown that conditions of nervous depression are attended by a lack of hydrochloric acid in the stomach. This throws great light upon the character of food allowed to such patients. The length of time and duration of the lactic-acid period of digestion before it is replaced by hydrochloric acid is especially instructive in the etiology of diseases dependent upon excess of ferment. The prolongation of the lactic-acid period beyond one hour can hardly fail to be followed by systemic disturbances, which may be corrected by the administration of hydrochloric acid. The fretfulness of sour-smelling babies, attended by disturbances in the alimentary canal, and the consequent rachitic condition, are thus explained, as also the splitting frontal headache in adults, with the ulterior production of rheumatism. The arrest of this process in its inception by a practical application of knowledge based upon these physiological facts is also patent. The proper time for the administration of medicines, with a view to their rapid solubility and absorption, may thus admit of a scientific reason for directions upon the druggists' packages rather than the arbitrary and haphazard instructions so often given. The length of time required for digestion, as determined by the salol test of Prof. Ewald, is of great importance in determining the nature of a dyspepsia.

Permit me, in conclusion, to make mention of those therapeutic agents which, during the summer months, have been weighed in my practice and have not been found wanting. In entero-colitic diarrhea, the so-called "summer complaint" of cities, dependent upon the various micro-organisms, vitiated air, and bad food, salol, naphthaline, carbolic acid (nascent), calomel in minute doses and nitrate of silver, have stood the test. In gastro-enteritis I have found salicylate of bismuth useful, and in inflammatory diarrheas (the dysentery of some authors) of infants and older children, Rochelle or Epsom salts in acid infusion of roses with small doses of laudanum. In chronic cases the nitrous acid camphor mixture of Dr. Hope has not failed. For the gastric fevers so common in children, the preparations ammonia-phenique and sulpho-phenique of M. Declat have been used exclusively in a large number of cases with much better results than any former treatment; also the same for the exanthemata. For "whooping cough," Declat's syrup coqueluche is nearly a specific. In diphtheria, locally, Marchand's peroxide of hydrogen and whisky internally have established their value. A word in regard to the use of the peroxide: It should always be purchased in the smaller four-ounce bottles, protected from the light by blue glass bottles and corked with rubber. That sold by the druggists from large bottles is, in the majority of cases, worthless. It is a very unstable article, and unless it causes immediately a white, foamy reaction when brought in contact with the false membrane, it should be discarded and another lot obtained. I am satisfied that I use it more freely and more persistently than most practitioners. I use mops made by twisting a sort of absorbent cotton upon sticks, using as many as thirty or forty in the twenty-four hours. Such mops will take up nearly a half ounce apiece, and, when forced well back into the pharynx, reach all parts. The gagging and resistance of the child assists in the distribution of the fluid. As soon as a mop has been used it is committed to the fire. In this way I have treated the worst as well as the milder forms of diphtheria with complete success. I believe that the systematic use of definite, although often

toxic doses of whisky, even in children of tender age, to be the surest safeguard against heart failure.

LOUISVILLE.

## OLD MEN IN THE MEDICAL PROFESSION.\*

BY T. B. GREENLEY, M. D.

Within the past few weeks I have had the pleasure of meeting a goodly number of elderly members of our profession, and was glad to find them so active in the performance of their professional duties and apparently so cheerful and happy.

There is no better indication that an old man in the practice of medicine has spent his life conscientiously in ministering to his *clientele* than to see him in his declining years enjoying the association of friends in a lively and happy mood. Such a man, we can safely say, has never refused a helping hand to the needy sick, nor withheld a cheerful word to the distressed. If we have worked half a century merely for the pay, and ignored the calls of charity, can we, as a liberal profession, possess a conscience devoid of regret, and enjoy in peace and happiness our latter days? I am inclined to think not.

These thoughts occurred to me while on my late visit to Maryland, my native land. I there met some five old men in the profession who were boys when I was young. These have been hard workers for nearly fifty years, and have acquired an enviable reputation for their kindness to the sick and their interest and earnestness in their professional duties.

I feel confident that their consciences are at ease when they take a retrospective view of their laborious career. This is plainly evidenced by their happy mood and joyous old age. I know it would not excite any vanity on their part were I to give their names. They are Drs. W. H. Hardcastle and Chapman, of Talbot County; Dr. Reynolds, of Queen Anne's County, and Drs. Alex. Hardcastle and Goldsborough, of Caroline County. These men all stand high in their profession, and although advanced in years are still hard workers.

\*Read at June meeting of the Hardin County Medical Society.



A short time since I had occasion to visit New Albany, where I had the pleasure of meeting several physicians who are becoming old in their profession. The first one was the somewhat celebrated surgeon and physician, Dr. Sloan. The doctor has been practicing in New Albany fifty-three years, and is still stout and active and continues to take great interest in his profession. I found the doctor at work in his garden, and thinking him too old to labor for his own benefit inquired if he was working for posterity. He is as jovial and full of life as a young man.

I next met Dr. Stewart, who is also advanced in years, and still actively engaged in his professional work. He enjoys a fine professional reputation.

I also met Dr. Clapp, who has practiced about forty-three years in his city. He succeeded his venerable father many years ago, who was one of the most noted doctors of his time. Dr. Clapp is a very affable and pleasant gentleman and stands high in his profession.

I also had the pleasure of meeting my old time friend Dr. Bowman, who is in his forty-third year of practice in New Albany. He is also an extremely polite and pleasant gentleman, and does an extensive practice.

I also had the pleasure of making the acquaintance of Dr. Easley, who I found to be quite agreeable and pleasant. He, although comparatively a young man, is well up in his profession.

All of these gentlemen seem to be in good circumstances, financially speaking, which goes to prove that they have not been laggards in their professional work, and I think I can safely say, from the genial, pleasant character of the men, that they have not neglected to observe the edict of the Good Book, "Be kind to the poor."

I am always proud to know that my brethren in the profession adhere to the precept of the celebrated Boerhaave, who, when asked how he could afford to do so much work among the poor, answered that "God was their paymaster."

New Albany should be congratulated on having such an able and gentlemanly corps of medical men.

It is not a common thing to find so many elderly physicians in a town, even as large as New Albany. Physicians as a rule do not live as long, take them as a class, as men of other professions or occupations. In making an estimate of the longevity of a group of one thousand physicians and that of as many of, say, lawyers, preachers, teachers, or literary men, as well as agriculturists, and we find the length of life against the doctors. The average difference will amount to about four years. Yet we occasionally find some very old men in the profession. Dr. Carson, of Pennsylvania, has practiced medicine sixty years, and the late Dr. Colvin, also of the same State, practiced fifty-nine years. Dr. Middlemore, of Birmingham, England, died, lately, aged eighty-seven years, and Mr. William Salmon, of Cambridge, is now in his one hundred and second year, and is the oldest living surgeon. But it is seldom that a doctor gets to be a centenarian.

It may be asked, why is it that physicians do not average in longevity the age of men in other professions or callings? This can be readily accounted for when we consider the various kinds of exposure they are subjected to in the pursuit of their profession. The loss of rest, exposure to inclement weather and to contagious diseases are some of the causes which tend to shorten life, from which other people are exempt. It would seem, however, that the longevity of the profession at present is about equal to that of different periods of the past. Hippocrates lived about one hundred years, which is as long as any we have an account of. Galen died at seventy, Galvani at sixty-one, Gall at seventy, the two Hunters and Sydenham at sixty-five each, Boerhaave at seventy.

But it may be asked, is there any way or means at our command by which protracted longevity may be attained? We think there is. Live a temperate, moral life; cultivate a contented, happy disposition, as well as a kindly feeling toward your fellow-man, and avoid as much as possible the violation of the laws of health.

When I was young and noticed old men gay and happy and seemingly enjoying themselves in life as well as young people, I thought it

strange that it could be so. I had an idea that they should be thinking more about the time so close at hand when we all have to pay the final debt, and wondered at their mirth. But since I have gotten to be old myself I can understand more clearly the enjoyment of old people.

I believe a joyous and happy old age can be vouchsafed to any one who will conscientiously perform the various duties devolving upon him in the different walks of life.

This consciousness will guarantee him peace of mind and remove the fear of death.

MEADOW LAWN, KY.

### A CASE OF OVARIAN CYSTOMA.\*

BY ARCH DIXON, M. D.

Mrs. G., aged twenty-nine, married, mother of four children, youngest child two years of age, had not felt well since her last delivery, which was long and tedious. One year ago she noticed an enlargement, low down on the right side, about the size of an orange. Was not examined by any physician at that time. Enlargement grew rapidly, causing much pain and discomfort. On June 10th I was requested by her brother, Dr. Thos. Bethel, of Pooletown, Webster County, Ky., to do abdominal section, and if possible remove the growth, the character of which he had not determined. On June 14th saw the patient for the first time at Robards, Kentucky. Diagnosis, ovarian cystoma. She was anxious for an operation. Assisted by Drs. John Young Brown and Arch Dixon, jr., I proceeded at once to open the abdomen. A large quantity of ascitic fluid surrounded the cyst, which was very large and attached by adhesions from pedicle to base on the left side. The adhesions were tough and strong. A previous tapping doubtless assisted in bringing this about. With as much caution as I could bring to bear the adhesions were broken up, bleeding points caught and ligated with sterilized silk. At the extreme upper left side of the tumor a large piece of omentum had to be tied off and cut away. The pedicle, which was inserted close up to the uterus on the left side, was

ligated in the usual way, Chinese twist being used. After emptying the tumor it was found impossible to deliver the sac without enlarging the abdominal opening, which was accordingly done, the incision extending three inches above the umbilicus. After removing the tumor the cavity was thoroughly irrigated and washed out with hot sterilized water, which, together with the sponges and dressings, was furnished by Mr. Julius Baldauf, of Henderson, Ky. The pulse, which was very feeble, came up wonderfully under the irrigation. The abdominal wound was closed, a glass drainage-tube being left in with a provisional suture for closing the opening after removal of the drainage-tube.

The subsequent history of the case is given by Dr. P. Ligon, of Robards, under whose care Mrs. G. was during my absence. As the treatment after operation in these cases is almost if not quite as important as the operation itself, Dr. Ligon deserves praise for his efficient conduct of it.

"Operation, June 14th, 10 A. M.; Mrs. G., ovarian cyst; weight of patient before operation, 136 pounds—twenty days after operation, 90 pounds. Recovered from shock of operation and from anesthetic well. Tablespoonful of hot water was given every three or four hours; vomited very often. Temperature at 6 P. M., 99° F.

"June 15th: Temperature 7 A. M., 98.5°; 6 P. M., 98.5°. Vomited several times during the day. At 8 P. M. enema of whisky and milk. Vomited none through the night.

"June 16th: Temperature 7 A. M., 98.5°; 6 P. M., 100°. Stomach quiet. 3ij Rochelle salts were given, followed by enema of warm water at 6 P. M. Bowels moved twice during the night.

"June 17th: Temperature 6 A. M., 98.5°; 6 P. M., 99.75°. No vomiting. Peptonized milk taken every two hours. Drainage-tube was removed at 8 A. M. 3j Rochelle salts given, followed by several actions from bowels during the night.

"June 18th: Temperature 98.75°, 6 A. M.; 6 P. M., 98.5°. Rested well and feels well.

"June 19th, 20th, and 21st: Temperature normal. Appetite good. Stitches removed.

\*Read before the Henderson County Medical Club.



"June 22d: Sat up some and has good appetite.

"June 28th: Had slight attack of malaria, which was easily controlled by quinine.

"July 10th: Took the train for Henderson to make a visit."

Saw Mrs. G. on 11th July. Recovery perfect. Those present at the operation were Drs. John Young Brown, Arch Dixon, jr., of Henderson, Thos. Bethel, P. Ligon, L. Cottingham (who kindly and efficiently gave the anesthetics), L. Royster, of Cairo, Ky., and Dr. R. H. Moss, of Corydon, Ky. The main object in reporting this case is to call attention to the method of drainage, which was by the usual glass tube (Keith's), perforated near the bottom, placed in Douglas' sac and covered with iodoform gauze. The tube was emptied at short intervals by a piston syringe with a piece of rubber tubing attached. On the first day two ounces of bloody serum were withdrawn, three ounces on the second, and two and a half on the third. The tube was removed on the fourth day. To my mind Keith's tube is a good one, but it is a trap-door for infection; the door is almost constantly open, and each time the syringe is used your patient is in danger. There can be no doubt that the intestines are the best of all drainage-tubes, but there are cases in which the secretions are of such a character that the bowel can not be relied on to remove them, and then artificial drainage is imperative. Keith's tube is perhaps the best, but could not something be contrived which would do away the necessity for emptying this tube by the ordinary piston syringe with the rubber-tubing attachment? I have thought that perhaps if the glass tube was filled with strips of sterilized gauze, the strips being the full length of the tube, that the cavity could be kept drained by capillary attraction. If it became necessary to wash out the cavity through the tube, the strips could be removed for that purpose and be replaced again when the injection was finished. Be this as it may, I have known several cases in which secondary infection took place through glass tubes. To surgeons living in large cities, with the advantages of hospitals, well-fitted up operating-rooms, and, above all, of well-trained

nurses, this may seem a very ordinary case to report, but situated as country surgeons are, without any of these advantages, we have reason to congratulate ourselves upon the successful termination of operations of much less magnitude than the one mentioned.

HENDERSON, KY.

## Societies.

### MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Seventeenth Annual Meeting, held in St. Louis, Mo., October 14, 15, 16, 1891, Dr. C. H. Hughes, of St. Louis, President, in the chair.

#### FIRST DAY—MORNING SESSION.

The Association was called to order at 10:30 A. M. by Dr. I. N. Love, Chairman of the Committee of Arrangements.

The President's address was delivered by Dr. C. H. Hughes, of St. Louis. After discussing and recounting the wonderful progress of medicine in recent years, the doctor then took up specialists and specialism. The true specialist should be largely a consultant to the general profession and mainly indebted to it for his practice. In discussing moral and social relations he said that physicians are as a class honest men. We are often charged with incompetency, but seldom with dishonesty—never justly the latter; for medicine, whatever her faults of head, has none of heart toward mankind. She is the peer of all professions. How medicine has helped mankind was next discussed, and the ways found to be quite numerous.

Non-political interference with public medical charities was considered. Where the spoils of political conflict were human victims, minds dethroned and sacrificed to medical incompetency and party policy, we should secure for them the proper medical as well as custodial care. We should endeavor to so influence public opinion and to so use our ballots that parties and politicians so politic and inhuman as to sacrifice the mental and physical maimed or ill in public hospitals and others of our eleemosynary institutions whom it is our special

duty, under Providence, to guard, shall know the profession's indignation and feel its power.

The doctor in politics has too long held aloof from the affairs of State, and as a consequence the great names of our medical history have no monuments to perpetuate their fame. Had we but looked well to our interests, the President's Cabinet would long since have been represented by one member of the profession, as law, agriculture, finance, etc. We should have the Medical Minister of Public Health, for which the American Medical Association is just now pleading.

Dr. W. Carroll Chapman, of Louisville, read a paper on *The Toxic Effect of Tobacco Vapor*, with report of cases.

He said that usually the presence of tobacco poison in the systems of tobacco workers is manifested during the first day or two by violent vomiting, retching, purging, and often a state of collapse, after which the system may become inured to it. Occasionally we find one whose constitution, even by contact and time, although there is a certain amount of toleration, refuses to receive it kindly, and emaciation begins, attended sooner or later by such symptoms as the following case illustrates:

CASE 1. Willie C., aged ten years, was found suffering extreme pain in the abdominal region, with the intensity centering at the umbilicus. Temperature under the tongue 100°; pulse 108, small, wiry, and irregular; respiration 20 to 22, but irregular—several short, shallow respirations followed by one deep and gasping. Tongue glairy, red appearance, and pointed. Patient constipated for the last several days; abdomen flat or rather depressed; urine scanty and slightly colored; skin dry, as were the hands and feet, the latter being a little cold. When near the patient the odor of tobacco was so pronounced that the doctor made inquiries regarding it and learned that he worked in a tobacco stemmery, and farther, that he had slight attacks of similar pains at several different times, except of a milder form.

As to the nicotianin, indications point strongly to its being a cause. According to Landerer it occurs only in dried tobacco leaves, and has the odor of that plant; a point strongly in its favor, as that odor was so distinct in every case

the author had seen. It would seem, further, that the basic substances and fatty acids were causative agents, because authors have proven by physiological experiments that these cause contraction of the pupil, dyspnea, abdominal pains, convulsions, and death.

The author directs attention to two factors noticeable in all the cases, namely: the emaciation, and the time each one had followed the occupation, that is, from six weeks to three months. The three cases which he reports had not suffered from the vomiting and retching usually attendant upon young tobacco workers the first day or two. In the other, or milder cases, he neglected to inquire regarding that point.

The toxic effects of tobacco vapor and its treatment was a subject worthy of more consideration than the profession has accorded to it in the past, and he hoped that the next few years, aided by diligent and careful investigation, would place the matter in a more intelligent light.

#### AFTERNOON SESSION.

Dr. William Warren Potter, of Buffalo, read a paper on *Pelvic Inflammation in Women; a Pathological Study*. The author affirmed that pelvic inflammations and their residues constitute about one third of the diseases that gynecologists treated, hence the importance of frequent discussions of all moot questions relating to the subject. He briefly reviewed the anatomical relations of the pelvic organs, calling attention to their enormous blood and nerve supply, which became both their weakness and their strength.

He contrasted the pathology of Bennet (1843) with that of Emmet (1873), and the latter with the teachings of Price, Tait, Hegar, and McMurtry of the present age. He referred to the pathological studies of Bernutz and Goupil of thirty years ago, and affirmed that the observations of the present had served to confirm the correctness of those pioneers.

He next asserted that the pathology of today had been established by operative surgery, which had shown that pelvic inflammation begins in the tubes or ovaries and extends to adjacent structures through absorption or by contiguity; that it almost never begins in the cellular tissue, but may be carried there



through the tubes and ovaries by infections, either specific, puerperal, or traumatic. He affirmed that the inflammation was in most cases a peritonitis, intra-pelvic or local in character, and not a cellulitis; that para- and perimetritis were misleading and confusing terms, hence should be dropped; and that the so-called pelvic abscess was a sequence of salpingitis, ovaritis, or peritonitis, not a primitive accumulation in the areolar tissue itself.

The tentative management in these cases—rest, counter-irritation, hot sitz baths, vaginal douches, and attention to the digestive organs and general health—resulted in only temporary improvement, or in cure in a very small percentage. Those reported cured were generally, if the history could be known, subject to repeated relapses and a frequently recurring pelvic peritonitis usually indicated leaky tubes. Electricity, too, had disappointed even its most sanguine advocate, and need not be considered.

In conclusion, he asserted that if these views be accepted the logical deduction was to watch the early manifestations of the disease carefully, that competent surgical skill be invoked before the damage to important structures becomes too great to justify the expectation of successful operation.

#### SECOND DAY—MORNING SESSION.

Dr. Arch Dixon, of Henderson, Kentucky, read a paper on *Gastrostomy for Impermeable Stricture of the Cardiac End of the Esophagus; Recovery; Subsequent Dilatation of the Stricture.*

On July 14th of the present year, Dr. Thos. W. Taylor consulted him in regard to a patient who was unable to swallow any thing save liquid. The patient, Captain S., aged fifty-four, weighed 230 pounds previous to difficulty in swallowing, and at the time of examination 156 pounds. Examination by means of esophageal bougie (smallest size) revealed the fact that complete stenosis of the esophagus existed at the cardiac end. Repeated trials failed to pass the stricture and the patient was informed that only an operation, the nature of which was explained to him, could prevent his death from starvation. Operation was declined. Again, on July 29th, the patient consulted

him, and after per-sistent effort he failed to pass the stricture with the smallest bougie. The patient was requested by the author to go before the Henderson County Medical Society, which held a meeting that afternoon, and be examined. To this the patient consented, and again an attempt was made to pass the stricture by a number of physicians present, without success. A statement of the case was made by Dr. Dixon, and the unanimous opinion was expressed to the patient that only an operation could save his life. The patient had by this time grown much weaker and was reduced in flesh to 140 pounds. The operation was consented to, and on August 4th, at the Home Mission Sanitarium, assisted by Drs. John Young Brown, W. M. Hanna, W. S. Stone, A. J. Lieber, and T. W. Taylor, Dr. Dixon did a gastrostomy after Hecker's method, as follows:

The patient was prepared in the usual way, the field of operation being made as nearly aseptic as possible. Chloroform was administered by Dr. T. W. Taylor. The incision was made four inches long, beginning one inch below the ensiform cartilage and an inch and a half to the left of the medium line; the peritoneum was reached, caught up between the forceps and divided the full length of the incision. The index and the middle fingers were inserted, the transverse colon pushed down and the stomach reached without difficulty. A fold was caught between the the fingers and partially drawn through the wound, where it was held by Dr. Brown, while a careful search was made for the cardiac end and to detect, if possible, any tumor or enlargement which might be the cause of the stricture; none could be discovered. A silver pin was now passed through the fold of the stomach, which was drawn through the wound a little above the level of the skin, care being taken that the pin pierced the mucous membrane, as suggested by Weir, thus forming a support for the stomach in the wound and serving as a guide when the opening should be made into it to show that the cavity was reached. The pin was about three inches long and rested on the skin on either side of the wound. The peritoneal coat of the stomach was now stitched to the peritoneum

by a continuous suture, which on either side of the wound included the skin. The peritoneum above and below was brought together by interrupted sutures, which embraced muscle, fascia, and skin as well.

The wound was now covered with iodoform collodion over which iodoform gauze was placed, confined by adhesive strips. The opening into the stomach was purposely deferred until adhesions should have formed. The patient recovered from the effects of the anesthetic well. There was some pain of a darting character, which was relieved by hypodermic injection of morphia,  $\frac{1}{4}$  gr., and atropia  $\frac{1}{150}$ . The operation was finished at 11 A. M. At 6 P. M. temperature was  $99^{\circ}$ ; pulse 78. August 5th, temperature  $98.5^{\circ}$ ; pulse 72. Temperature and pulse remained normal until the morning of August 7th, when the dressing was removed.

A few drops of cocaine were injected into the fold of the stomach which protruded through the wound, and gastrostomy was completed by cutting down upon the pin with a tenotome. As in Weir's case, the presence of the pin was a valuable guide in showing beyond question that the cavity of the stomach had been entered. There was no hemorrhage of moment. The adhesions being firm, the pin was withdrawn and the mucous membrane was drawn up and stitched to the skin. A rubber tube was now passed into the stomach through the opening, fitting it snugly. Iodoform collodion was liberally used around the tube and over the abdominal wound. Iodoform gauze, folded several times, through which a hole was cut for the tube, came next, covered by a piece of rubber sheeting. Borated cotton, held in place by adhesive strips, completed the dressing. The tube was kept *in situ* by a thread passed through it above and below, and the thread held in place by adhesive strips. Peptonized milk, one half pint, with a teaspoonful of Mosquera's beef-meal, was now injected through the tube into the stomach by means of a large syringe. An ordinary spring clothespin was used as a clamp for the tube. Six hours later another one half pint of milk with the beef-meal was thrown into the stomach, the patient experiencing a satisfaction which had not been experienced previously from the use

of nutritive enemas. Temperature at 8 P. M. reached  $101^{\circ}$ . At 10 A. M., August 8th, it had again fallen to normal. The feeding was continued at intervals of six hours, the food being varied in character, chopped meat, eggs, bread, etc., the patient having an aversion to brandy, and would take no stimulant of any character. Improvement was steady, and in ten days the patient was out of bed. In two weeks he was walking about the house, and in three weeks was down in the city, a distance of one half mile from the sanitarium.

On the 29th day of August, twenty-four days after the primary operation, and twenty-one days after the stomach was opened, Dr. Dixon determined to try dilatation, and was agreeably surprised to find that the smallest size, olive-pointed bougie entered the stomach, passing the stricture without difficulty; a size larger was now used, and it passed also without force.

The following day a large stomach-tube was passed down the esophagus, and with little difficulty entered the stomach. Dilatation was continued at intervals of a few days. From liquid food the patient soon essayed some solid food, and on September 10th took his first square meal, which consisted of oysters, broiled beefsteak, coffee, eggs, and bread. The patient left the sanitarium, and he was thinking seriously of closing the abdominal opening, or allowing it to close. On September 23d, the patient, who made daily visits to his office, complained again of difficulty of swallowing solid food; especially was there difficulty in swallowing bread. The bougies passed the stricture easily on entrance, but on withdrawal there was a decided hitch; even the smallest bougie was caught slightly when withdrawn. Dr. Dixon at first attributed this to spasmodic action, but the difficulty grew greater and greater until finally he could no longer enter the stomach by way of the esophagus with a bougie. Liquids could still be allowed, and found their way into the stomach. He now determined to try retrograde dilatation, and on September 30th, assisted by Dr. John Young Brown, he succeeded in finding the cardiac end of the esophagus and entering it with a very small bougie *à boucle*. The opening was about



the size of a very small shirt-button hole, and felt much like the meatus urinarius in a girl; it was surrounded by a hard tissue, feeling much like a fibroid. A uterine sound was next properly bent and, with the finger as a guide, passed into the esophagus; this was followed by a uterine dilator; slight pressure on the handles opened the blades most half an inch, but the patient experienced so much pain that it was deemed best to desist. The following day chloroform was administered and retrograde dilatation was accomplished, first by means of G. Wylie's uterine dilator, the use of which enabled him to enter the orifice with a large size bougie (rectal).

Up to this time he had not been able to determine whether the stricture was due to malignant trouble or not, but on passing the finger into the non-dilated esophagus a friable, irregular growth was detected, which easily broke down and bled rather freely. A piece of this growth was twisted off by forceps, and was sent to Formad, of Philadelphia, for examination. Since the dilatation the patient has been able to swallow solid food without much difficulty, and has notably improved in flesh and strength, and is able to attend to some business.

The author wished to acknowledge his indebtedness to Dr. Robert F. Weir, of New York, for many valuable suggestions, both in the performance of the operation and in the management of the case afterward, gleaned from his report of a similar case published in the Medical Record, July 25, 1891.

#### SECOND DAY—AFTERNOON SESSION.

The Influence of Graveyards on Public Health, or the Sanitary Disposal of the Dead, was the subject of an interesting paper before the Association, by Dr. J. W. Carhart, of Lampasas, Texas. He gave a *resumé* of the manner of disposing of the dead through past centuries and among various nations of ancient and modern times; and as this question thrusts itself upon attention with accumulated force each year, a wise and proper settlement is demanded. Aside from esthetic considerations and natural love and veneration for departed friends, the inevitable conclusion must be reached from all the facts at command that

the graveyard should become a thing of the past, and that incineration is the method most in accordance with science, sanitation, esthetics, reason, and religion.

Dr. F. C. Hoyt, of St. Joseph, Mo., read a paper entitled Pachymeningitis Hemorrhagica Interna, with report of a case and presentation of a pathological specimen, and suggested the following deductions, offering them as a practical and rational view of the subject:

1. That the disease known as pachymeningitis hemorrhagica interna chronica is not a disease of the dura mater primarily, and not necessarily at all. The name is therefore a misnomer, and the simpler term, sub-dural hematoma, should be substituted.

2. That the condition is due primarily to paralysis or loss of the normal vaso-motor tonus, associated with structural changes in the cerebral vessels, particularly those of the pia mater.

3. That hemorrhage may, and often does take place in the substance of the dura from the causes stated in this paper, but that its vascular supply and anatomical structure render it improbable that these hemorrhages play any part in the formation of a sub-dural hematoma.

4. That the hemorrhage occurs from the vessels of the pia mater primarily, forces its way without difficulty through the upper web-like layer formerly called the arachnoid, escaping into the sub-dural space. The extravasated blood becomes organized, new vessels are formed, and these assist in furnishing the recurrent hemorrhages.

5. That the inflammation of the internal surface of the dura mater is secondary and due to the irritation of the extravasation, and then is not general, but occurs only in patches where organic union has taken place.

Dr. Seth S. Bishop, of Chicago, in a paper entitled Camphor-Menthol in Catarrhal Diseases, reported a large number of cases of nasopharyngeal catarrh, hay-fever, and diseases of the ear as having been treated with camphor-menthol with much better results than menthol alone produces. The presence of the camphor appears to intensify the action of menthol.

A number of hay-fever sufferers, among them

the president of the United States Hay Fever Association, have obtained greater relief from this inhalent than from any other they have ever tried. The effect of the camphor-menthol in reducing turgescence and consequent tumefaction of the turbinated bodies has rendered a contemplated operation for stenosis unnecessary in several cases cited.

Injections of a ten-per-cent solution of lanolin into constrict eustachian tubes has caused them to become patulous. The improved ventilation of the middle ear thus affected, together with inflation with a five-per-cent spray of the same liquid in hypertrophic tympanic catarrh, increased the hearing and produced a sense of clearness and comfort in the head.

Cases of laryngitis with the voices reduced to a whisper were treated with inhalations varying from five to twenty per cent in strength, with the result of restoring the voices completely in from twenty-four to forty-eight hours.

No ill results have followed the use of this remedy in the nose, throat, larynx, or middle ear. The ordinary strength of inhalations recommended by Dr. Bishop were three or five per cent for very susceptible or sensitive individuals, like hay-fever patients, and ten per cent for less nervous persons with hypertrophic catarrh, etc. In order to reduce great swelling of the turbinates and relieve stenosis the solution should consist of twenty or twenty-five per cent of the camphor-menthol. The full strength of the camphor-menthol applied to eczematous eruptions relieves the itching and dissipates the redness and swelling. Similar results followed its application to herpetic eruptions.

Finally, camphor-menthol contracts the capillary blood-vessels of the mucous membrane, reduces swelling, relieves pain and fullness of the head or stenosis, arrests sneezing, checks excessive discharges, and corrects perverted secretions.

#### SECOND DAY—EVENING SESSION.

The Association was called to order at 8 P. M. by the Second Vice-President, Dr. S. S. Thorn, of Toledo, Ohio, after which President Hughes delivered his address on Medical Progress.

He reviewed the history and progress of

medicine and surgery. He said it was gratifying to the humanitarian student of scientific medicine to note the amazing progress lately made in the knowledge of the human organism and in resources for its regulated control in health and disease. He referred to the wondrous laparotomies of Tait, the brilliant craniotomies of Victor Horsley, and the abdominal sections of Senn.

He said the memory of Harvey, Jenner, Jackson, McDowell, and a host of others is not yet fully appreciated by the world at large, but their deeds will shine brighter and brighter as the world comes to know them and fully realize as we do their incomparable benefactions, their unsurpassed greatness, and their unequaled heroism.

#### THIRD DAY—MORNING SESSION.

Mr. Charles Truax, of Chicago, read a paper (by invitation) entitled, *Are Conservative Amputations Always in the Interest of the Patient?* He said that during the past quarter of a century the development of prosthetical science has advanced with a rapidity unprecedented in the history of the art. The first of the two great causes which stimulated this development may be found in the dreadful carnage and mutilation observed in the late civil war, which left thousands of veterans maimed by the loss of one or more limbs, for whom it was necessary to provide artificial substitutes. Experience and investigation had convinced him that the percentage of favorable cases can be largely increased, provided surgeons will familiarize themselves with the necessary mechanism of ordinary artificial legs and the relations existing between them and the stumps on which they are to be worn, and select their point of amputation accordingly.

From a statistical point of view, he finds that, out of 2,135 tibial amputations reported to him as being performed between the years 1885 and 1891, 90.7 per cent resulted in healthy stumps, 3.1 per cent of stumps upon which compensative appliances could not be worn. Of these tibial cases, 962 were seen by the surgeons after they were wearing or had attempted to wear an artificial limb, 86.9 per cent of which walked with an easy movement



and a comparatively graceful step. Of 658 tarsal and tibio-tarsal amputations reported at the same time, 82.7 per cent resulted in sound healthy stumps; 8.3 per cent underwent re-amputation, while 3.2 per cent died, leaving 14 per cent, including re-amputation, upon which prosthetical apparatus could not be worn. Of this class of cases, 169 after attempting the use of compensative appliances, 54.4 per cent of which could walk well.

If we can judge from the foregoing statistics, in over 100 cases of each of these classes of operations, we may reasonably expect the death loss to be in favor of tarsal operations as 50 to 3.2 per cent, while the ratio of re-amputations necessary will be in favor of tibial amputations as 8.3 is to 3.1.

He recommended surgeons to avoid amputating within three inches of the knee-joint. Do not amputate between the metatarsal bones and the junction of the lower and middle thirds of the tibia. At all other points they should save all they could, and they will have done in every case the best for their patients.

Temperature no Guide in Peritonitis was the subject of a paper by Dr. H. C. Dalton, Superintendent of the St. Louis City Hospital. The doctor has become so skeptical on the subject of fever in peritonitis that he is no longer guided by the thermometer in considering the advisability of an operation in abdominal cases. He takes the temperature in all cases and weighs it for all it is worth, but does not let the lack of fever deter him from operating when other symptoms on which he has learned to place far more reliance would move him in the opposite direction. A number of cases were reported going to prove the presence of peritonitis in the absence of fever. He concludes that when fever is present in belly cases it is well to remember that it indicates peritonitis; its absence, however, does not warrant us in saying that peritonitis is not present, and should not blind us to the actual condition.

Dr. George N. Lowe, of Randall, Kas., read a paper on Sarcoma of the Dorso-Scapular Region. He reported a case on which he had operated, the patient—a man, aged eighteen years, with no history of tuberculosis, carci-

noma, or sarcoma—recovering. The object of this paper was to show—

1. The necessity of an early operation in all cases of a malignant growth.

2. That some species of sarcoma are more rapid and destructive in their course than carcinoma, especially the spindle and giant-celled variety.

3. The necessity of having a law to enforce patients so afflicted, as soon as a correct diagnosis can be made, to an early operation, thereby preventing great suffering and prolonging life.

4. That a sarcoma which has grown to an enormous extent, infiltrating the surrounding tissue at any considerable extent from the main growth with cell proliferation, an operation is almost useless as regards a permanent cure.

Dr. W. H. Link, of Petersburg, Ind., read a paper on Appendicitis, and offered the following conclusions:

In the commencement of the attack, give salines often and liberally till the gut is completely emptied. Advise perfect rest in bed. Forbid any but liquid nourishment. If pain is severe, apply counter-irritation and dry heat until salines act. If patient improves, wait. If pulse grows worse, if temperature rises, if pain increases, if tumefaction becomes larger, if tenderness becomes more marked, operate. At no time give morphia, but consider an increase of pain sufficient to demand relief by opium an imperative, unequivocal, and emphatic indication for surgical interference.

Rheumatism and Gout as Factors in the Causation of Eczema, and the Management of those Conditions, was the title of a paper contributed by Dr. A. H. Ohmann-Dumesnil, of St. Louis. He did not purpose speaking of the etiology of eczema. The only phase which he desired to take under consideration was, in how far rheumatism and gout were concerned in the causation and prolongation of eczema, and what was the proper management of those conditions in order to derive the greatest benefit, so far as the cutaneous involvement is concerned. Naturally this implied that he was about to sustain the position that the conditions named were etiological factors, and such was probably the case. If we took the trouble

to examine critically the history, condition, treatment, and results in the patient, a mass of evidence would be found which, if it did not constitute absolute proof, bore so much weight with it that the probabilities would all tend to confirm and strengthen the position that rheumatism and gout prolong, intensify, and even cause eczema. He had found it to be quite frequent also to note the fact that an acid condition was present in eczematous patients. It occurred too frequently to be regarded as a coincidence. Moreover, a correction of this acid condition finds its good effect reflected in the case with which the cutaneous trouble gave away to proper medication. Whether such cases were inclined to rheumatism or gout, it was difficult to say; but that an excess of acid was found in all of these conditions there was no opportunity of denying. For, if eczematous patients were interrogated in this respect, a large proportion of them would speak of acid eructations, pyrosis, and other evidences of the condition.

In regard to the management of gout and rheumatism, volumes had been written and equally good results had been claimed for different methods of treatment. The most powerful alkali to affect the solubility of uric acid was, beyond all doubt, lithia. The urates of that alkali are the most soluble known, and on that account a better elimination can be secured. Potash salts run next in value in regard to their solvent value upon uric acid. The soda salts, while exercising good influence, are not as valuable in this respect as either of the others, and the magnesia salts are the least effective.

A question of no mean importance was that concerning the solubility of the various alkaline salts. Chemical investigation has clearly demonstrated that the bicarbonates of lithia, potash, and soda are not only the most soluble, but the most easily assimilated by the animal organism. To prevent any decomposition, it is only necessary to dissolve them in carbonated water, which not only keeps them in a soluble state but also adds to their palatability.

Dr. Enno Sanders, of St. Louis, had prepared his well-known lithia-potash water, which fills all the indications required, and

which acts not only as an anti-rheumatic, anti-lithic, and anti-gouty mixture, but constitutes a grateful table water as well. It not only acts as a curative remedy, but what is still of greater importance, it is a reliable prophylactic. Its composition is as follows:

Lithium bicarbonate.....	gr. xij;
Magnesium bicarbonate .....	gr. x;
Potassium bicarbonate .....	gr. xvj;
Sodium chloride.....	gr. x;
Carbonated water.....	gr. xvj. M.

This quantity, one pint, should be taken daily, or the amount increased, if necessary.

Conditions occasionally arise in which it will be found that a mixture of salicylate of soda and bicarbonate of soda will effect the happiest results in rheumatism and occasionally in gout. Given in carbonated water, the administration is made pleasant, and the mixture has an effect upon the patient which is refreshing at the time it is taken, and which effects beneficial results in a very short time. When eczema is present the proper local remedies should be made, and it is astonishing how their action will be accentuated by the internal use of the alkalis, as indicated above.

Dr. C. A. L. Reed, of Cincinnati, Ohio, read a paper entitled, *Observations on the Management of Uterine Tumors*, in which he said that there are certain solid tumors of the uterus which require no operation. They are, for the most part, comparatively small neoplasms, either interstitial or sub-serous; they are indolent in growth, and they do not produce alarming symptoms from either pressure or hemorrhage. There are certain other myomata of the uterus that are uniformly recognized as demanding operation. They are, for the most part, rapidly growing tumors in young subjects, removable fibro-cystic tumors; soft, edematous tumors; large, bleeding fibroids, and those growths which give rise to ascitic accumulations.

Dr. Reed offered the following conclusions:

1. That all persistently hemorrhagic uterine myomata, of whatever variety, should be advised to early operation.

2. In young subjects, with multi-nodular tumors, giving rise to alarming hemorrhage, the appendages should be removed when practicable as an alternative for extirpation. But



the latter operation should be done whenever the character of the growth will permit of its removal by dangers less than those which would be involved by its continuous existence.

3. To those tumors already recognized as demanding operation should be added those of uterine development that are liable to dangerous constriction by the uterine walls, and in which their destruction by this means might induce sepsis.

4. All cases of sub serous growths, indolent, yet progressive in character, in which the tumor has become a menace to neighboring organs, should, whether hemorrhagic or not, be advised to exploratory incision with reference (1) to removal of the appendages, or (2) of the neoplastic organ.

5. All growing tumors, growing in women beyond the menopause, should be removed, if possible, by vaginal total extirpation, or, if that be impracticable, by abdominal section.

6. All distinctly operable cases demanding interference should be advised to submit to operation at the earliest practicable moment.

The Etiology and Treatment of Granular Conjunctivitis was the title of a paper by Dr. Francis Dowling, of Cincinnati, before the Mississippi Valley Medical Association at its recent meeting at St. Louis. He said this disease was not confined to any country or locality, but may be found in all quarters of the globe, though its great hot-beds are in some of the countries of the Orient. Certain races are especially liable, as the Irish and the Jews. Negroes are almost exempt. It is more frequent between the ages of fifteen and forty-five years. The atmospheric conditions exert an influence; low regions and swamps favor its spread. The disease is highly contagious. It is safe to say that three fourths of the blindness throughout the world is caused directly or indirectly by it. In 1886, in Finland, the proportion of the blind was as 1.348 of the population, and the principal cause was granulated lids. Eight per cent of the blind in the State of New York owe their condition to this disease. There is usually some special liability of the individual to its contraction, as a scrofulous or lymphatic constitution. A simple conjunctivitis under favorable conditions of bad

air, damp climate, overcrowding in schools, barracks, etc., developed in a lymphatic or scrofulous subject, will, in the course of time, develop into genuine granular conjunctivitis.

The treatment usually recommended for this disease is, touching the everted lids with astringent or caustic applications, in either the solid form or solutions of various strength. The most popular of these is the cupri sulph., or blue stone. The mitigated nit. argenti is next, but should be washed off when used in solid form, as by continued use it is apt to leave scars.

Dr. Abadie, of Paris, has recently reported the results of a series of experiments in the treatment of granular conjunctivitis by means of a 1-500 solution of the bichloride of mercury. The patient is first anesthetized, then the lid is completely everted, the granulated membrane thoroughly scarified with a small bistoury and the solution well rubbed in with a small brush. The rubbing is kept up until the bleeding is stopped in a measure, and the mucous surface resembles parchment in color. The lid is afterward touched up once a day with the solution until the granulations are eradicated. This, the author says, often occurs in three or four weeks, even in old cases, which often took many years to accomplish under the old treatment. Should this mode of treatment possess the merits the doctors claim for it, it will prove a veritable boon to humanity.

In outbreaks of the disease in schools, barracks, etc., the afflicted should be completely isolated, their apartments kept absolutely clean and thoroughly fumigated with burning sulphur, or other means, at least once a week. Errors of refraction should always be corrected in granular conjunctivitis, as, if these be allowed to remain, no treatment will avail for the disease. Constitutional medication in the shape of tonics and alteratives is usually required, combined with the local treatment.

Dr. John Bartlett, of Chicago, presented a paper in the form of a Review of an Obstetrical Work, published in Paris in 1682, by Paul Portal. He said the older members of the profession had for years rested in the opinion that it was Paul Portal to whom obstetrical science was indebted for the discovery of the

fact that in placenta previa the after-burden was attached to the womb, and had not simply fallen down over it, as was taught by writers before his day.

Dr. G. Frank Lydston, of Chicago, followed with a paper entitled, Observations on Urethral Stricture, in which there were many striking points. The author opposed the general impression prevalent among surgeons, that the long duration rather than the severity of a virulent urethritis determined the development of organic stricture. He claimed that this view has been due to fallacious reasoning from the standard of *post hoc ergo propter hoc*. It is not the long-continued urethritis that produces a deposition of the adventitious tissue constituting organic stricture. On the contrary, a chronic localized urethritis exists because the stricture or the foundation of it has been determined at some portion of the urethra by the primary virulent inflammation. He claimed that the liability to the formation of organic stricture is directly proportionate to the severity of the primary inflammation. The localization of stricture, the author claimed, was not due, as Sir Henry Thompson and his school assert, to an obstruction to drainage and the retention of the products of virulent inflammation, but to deficient elasticity or distensibility of the canal at certain points. The conditions determining stricture he compared to those prevailing in a rubber tube, about which cords are tied in such a manner that, while some actually constrict the tube, others simply prevent its distension. If fluid be pumped through a rubber tube thus constricted or restricted, as the case may be, at a certain degree hydrostatic pressure and at certain intervals, friction occurs at these points and a continual unrest. The epithelium is rapidly removed, its vitality being impaired by the virulent poison of urethritis. By and by rapid removal and reformation of epithelium becomes a cell habit, the resulting formation of cells being of a low grade of inherent vitality. In addition to this change upon the surface of the mucous membrane, there is deposited young connective tissue cells in and about the affected point as an evidence of an attempt on the part of nature to secure rest and prevent strain. These cells

the author likened to sandbags thrown up to strengthen or prevent a breach, as the case may be, in a fortification.

The doctor called attention to a number of interesting reflex phenomena incidental to stricture of the urethra. He also went exhaustively into the various toxemic conditions incidental to renal disturbance secondary to stricture, and to that peculiar form of toxemia incident to the absorption of ptomaines from from the site of the urethral lesion. He went into the subject of electrolysis, and absolutely denied the possibility within the limits of safety of using it in the treatment of organic stricture. Galvanism, he claimed, instead of electrolysis, is what is really accomplished. He condemned the routine and extreme claims of Newman, and also the other extreme, as represented by Dr. Keyes, who asserts that galvanism, that is, so-called electrolysis, has absolutely no effect. Dr. Lydston claimed that the effect of galvanism upon organic stricture of the urethra was the same in its physiological character as upon healthy or morbid tissue in any other situation. The author describes what he terms plus conditions of organic stricture. Thus we have engrafted upon the organic foundation varying degrees of hyperemia, spasm, and edema, one or all. These plus conditions, the author claimed, galvanism, properly applied, would subtract from the organic condition in certain cases, and in so far as this effect was marked the stricture would be benefited. The author denied the possibility of the galvanic current producing absorption of fibro-connective tissue after it has arrived at the acme of differentiation by any current which will not destroy the mucous membrane itself; in other words, we can not control the galvanic current so that it will exert a selective action and remove the abnormal tissue while sparing the normal tissue.

A Report of a Case of Retention of Urine Caused by Multiplication of Urethral Calculi was made before the Mississippi Valley Medical Association by J. V. Prewitt, M. D., of West Point, Ky. The doctor stated that urethral calculi were usually formed with some foreign substance as a nucleus, as a piece of bougie, bullet, peas, beans or pencils, which



children sometimes introduce into the ureter. Any change in the system which causes an increased formation of any of the slightly soluble constituents of the urine favors the tendency to the formation of calculi within the urinary passages. After citing the details of his case and displaying specimens of the eighteen faceted calculi, weighing four hundred and three grains, which were removed, the author concluded thus: There is no question as to what should be done for treatment, but how it can best be attained. The operative procedure must depend largely upon the peculiar feature of each individual case. If the stone be small, it may be removed by the use of Gross's long urethral forceps, or if the stricture be very close it should be first disposed of by some of the recognized operations. In the majority of cases when the diagnosis has been made of calculi in the urethra, the staff should be introduced into the urethra and incision made down to the stone, when it can be removed at once.

#### AMERICAN DERMATOLOGICAL ASSOCIATION.

The fifteenth annual meeting was held at Washington, September 22-25, 1891, in conjunction with the Congress of American Physicians and Surgeons.

The meeting was called to order by Dr. F. B. Greenough, of Boston, who made the opening address.

The report of the Committee on Nomenclature was made, and after discussion was accepted.

The first paper read was by Dr. H. G. Klotz, of New York, entitled *Dermatitis Hemostatica*. It was discussed by Drs. Piffard and Bronson.

Dr. L. A. Duhring, of Philadelphia, followed with a paper, *Report of a Case of Universal Erythema Multiforme*. It was accompanied by a colored portrait of the case and specimens of large plates of exfoliated epidermis shed by the patient during the latter part of the course of the disease. It was discussed by Drs. Hyde, Duhring, Sherwell, Shepherd, Fox, Allen, and Bronson. Dr. Shepherd asked if any drug had been administered for the

rheumatism that was a marked feature in the case, to which Dr. Duhring replied, "No; the treatment had been entirely negative." Dr. Fox had seen a case somewhat resembling that of Dr. Duhring, in which there was a question if the eruption had been caused by some drug that had been taken for a co-existing gonorrhea. He thought that it was a purely accidental occurrence. We often see cases of dermatitis exfoliation following other diseases, such as psoriasis.

Dr. Shepherd, of Montreal, then read a paper upon *An Unusual Case of Sarcoma Involving the Skin of the Arm, Requiring Amputation*.

This was followed by a paper by Dr. S. Sherwell upon *Multiple Sarcomata: History of a Case Showing Modification and Amelioration of Symptoms with Large Doses of Arsenic*. In the discussion Dr. Zeisler mentioned brilliant results in a case of lupus sarcoma for the administration of arsenic. In a case of pigmentary sarcoma he had given the drug without effect. Dr. J. C. White, of Boston, had seen good effects from use of the drug in one case of sarcoma. Dr. Robinson, of New York, had not had much success with arsenic. He believed that many cases of multiple sarcoma were in reality microbean in origin and not true tumors.

The next paper read was by Dr. R. B. Morison, of Baltimore, on *The Hypodermic Use of Hydrargyrum Formamidatum in Syphilis*, which he recommended as a treatment of great usefulness, specially as a means to fall back upon in some cases in which older forms of treatment did not succeed, or in which such a plan as that of inunction was not practicable. He always used Merck's preparation, and found that it did not cause much pain nor prove objectionable. He had never used any of the insoluble salts. In the discussion Dr. Corlett said that he had found hypodermic injections of mercury of great use in some cases, such as in those cases in which the stomach has given out. Dr. Klotz had employed hypodermic injections in syphilis. While it was doubtless of value in some cases, for most cases older methods of treatment are quite as good. Dr. Greenough said that while greatly interested in the subject of hypodermic

medication in syphilis, he had found it impossible to get his patients to submit to it. He thought it was useful only in exceptional cases in which other plans could not be used. Its ultimate result was no better than that of other plans.

Dr. J. Grindon, of St. Louis, read a paper upon *Lichen Scrofulosorum*, which gave rise to a long discussion. Drs. Robinson, Piffard, Sherwell, Shepherd, Corlett, Bronson, and Greenough all had seen cases of this rare disease.

Dr. S. Sherwell, of Brooklyn, gave a history of a case of multiple sarcomata of skin, showing modification and amelioration of symptoms with large doses of arsenic. The author, after pointing out numerically several interesting points, chief among which were largeness of therapeutic dosage, tolerance of them by patient, complete and rapid subsidence of tumors under such dosage, rapid recurrence under suspension of same, originality of treatment instituted, etc., goes on to give a history of the patient with sarcomata, supplemented with a further history by Dr. John B. Wheeler, of Burlington, Vt.

Dr. Sherwell removed in all from this patient thirty growths, some of which were quite large, one three and a quarter inches in diameter. Dr. Wheeler, about a year later, in a series of operations, removed the immense number of one hundred and seventy, large and small. In the interval between his leaving Dr. Sherwell's care and coming under that of Dr. Wheeler, he had interrupted or almost suspended treatment spoken of above, which had at the time of his leaving Dr. Sherwell caused the complete or almost complete disappearance of all growth. They recurred too rapidly for Dr. Wheeler to operate, when Dr. Wheeler adopted same internal treatment as that which Dr. Sherwell had instituted with the most decided and gratifying results, namely, the same rapid disappearance of the growths. The case ended by his leaving Dr. Wheeler's care in good condition and doing exceedingly well, irregularity or total interruption of treatment, and as before recurrences of growths, followed in a few months by death.

#### SECOND DAY—THURSDAY.

The Committee on Statistics made its report through its chairman, Dr. J. H. Hyde, of Chicago.

This was followed by a discussion on Tuberculosis of the Skin, which was opened by Dr. J. C. White, of Boston, who presented "Its clinical aspects and relations;" by Dr. J. T. Bowen, of Boston, who presented "Its pathology," and by Dr. G. H. Fox, of New York, who presented "Its treatment."

In the discussion Dr. H. G. Piffard drew attention to the fact that French and other competent observers had surmised the connection between what was then called pulmonary consumption and lupus and the so-called scrofula dermatata. He had done so in 1877. Recent invention of the Abbe condenser and Zeiss lenses had enabled us to discover the tubercle bacillus and to establish the relationship on pathological grounds. He himself believes that lupus erythematosus is fully entitled to the name "lupus," as he thinks that it too is of bacillary origin. Nor is he alone in his opinion. Cold abscess of the skin is probably due to the same cause, as is also rodent ulcer. He would agree with Dr. White in believing that we should have some collective term for all the various tubercular diseases. In treatment he would advocate cutting out the whole diseased patch, unless it was very extensive. Next to the knife he would place the actual cautery after removal as much as possible of the growth with the curette. Arsenic and chloride of zinc are also to be depended on.

Dr. C. W. Allen commended multiple scarification and combined pyrogallol and mercurial plasters. He thought that there might yet be a future for Koch's tuberculin.

Dr. J. Zeisler was in thorough accord with Dr. White. By his experience at the Hospital St. Louis he had become converted to the use of the galvano-cautery. He would also testify to the efficacy of the solid nitrate-of-silver stick, which, bored into the skin, would act both as a knife and caustic. He was not enthusiastic as to tuberculin.

Dr. E. B. Bronson believed that it was best to retain for some time our present terminology



for the different tubercular diseases. In regard to tuberculin, he had seen improvement in some cases treated with it, but on the whole his experience had made him regard the remedy unfavorably. He had had good success with the dental burr, as first advocated by Dr. G. H. Fox. The nitrate-of-silver stick was also good.

Dr. J. N. Hyde was glad that Dr. White had come to accept local contagion as the cause of lupus, a view that he himself was among the first to advocate. He thought that in this country there were but few cases of lupus with a history of pulmonary tuberculosis in the family, or with tubercular diseases elsewhere. He did not believe in the treatment by scarification. Both the curette and nitrate of silver were serviceable in proper cases. In regard to tuberculin, he thought it possible that in time we might find something of value in it, but it was not so now.

Dr. L. A. Duhring would retain the old names for some time to come. He had not found lupus associated with general tuberculosis in private practice. He would recommend pyrogallol most highly, using it in the form of a plaster with resin and soap plaster, three of the resin plasters and one of the soap plaster. This is to be worn continuously. Local use of bichloride of mercury he had not found beneficial. Tuberculin he had found helpful, though he did not report any case of cure.

Dr. P. A. Morrow would agree with Dr. White that as lupus and some other diseases had a common etiological factor, we should place them together under a common heading. He advocated the use of multiple scarifications followed by mercurial plaster. For destruction of the small lupus nodules he recommended punctate cauterization with a white-hot instrument. Chloride of zinc was superior to pyrogallol as a caustic. Excision will probably increase in favor as the means of treating lupus.

Dr. A. R. Robinson would not include lupus under a common heading with tuberculosis, on account of its different clinical aspect.

Dr. H. G. Klotz was not yet satisfied with our present knowledge of the infection of the skin with the bacillus tuberculosis.

Dr. L. D. Bulkley is not satisfied with any of the plans for the external treatment of lupus. Internally he has great faith in phosphorus as a curative agent, the nodules softening up and disappearing under its continuous use. He would corroborate Dr. Fox's advocacy of fuchsin. As to pyrogallol, that, too, was admirable. He applies it in powder form, pure, after scraping. Salicylic acid combined with pyrogallol is also useful.

Dr. S. Sherwell was doubtful of the relationship of tuberculosis to lupus.

### THIRD DAY—FRIDAY.

Dr. Duhring read a paper upon Notes of a Visit to the Leper Hospital of San Remo, Italy. In reply to a question by Dr. White, after the paper was read, he replied that no attempt at segregation was made in San Remo. There were but few cases in the hospital, and they were in an ordinary ward of a general hospital. They were not permitted to leave the confines of the hospital.

Dr. P. A. Morrow, of New York, then followed with a paper on Skin Grafting, and showed a case in which the operation had been done by the method described by him and with admirable results.

In the discussion of the case, Dr. Duhring spoke in high praise of the operation of skin-grafting as practiced by Dr. James E. Garretson. Dr. Clarke asked if Dr. Morrow thought that the inclusion in the graft of the deeper structures of the skin, as recommended by him, would give any better results than more superficial ones. To this Dr. Morrow replied that he thought they would be more certain to take, and he had had not a single failure. He had made more than fifty grafts of hairy skin upon a cicatricially bald scalp, and all of them had taken, and from many of them the hair was growing nicely. Dr. Sherwell had had good results also by deep grafts.

Dr. P. A. Morrow, of New York, then read a paper on The Treatment of Alopecia Areata, and was followed by Dr. L. D. Bulkley, of New York, with a paper on A Therapeutic Note on Alopecia Areata. The two papers were discussed together.

Dr. L. Zeisler believed alopecia areata was

due to a parasite, though perhaps there were some cases due to a neurosis. The latter were the very obstinate ones. He was in favor of treating all cases by epilation about the patches. With philocarpine he had had no success. He regarded the use of a concentrated solution of common salt as a good remedy for stimulating hair growth.

Dr. W. T. Corlett spoke in favor of acetic acid as a remedy in alopecia areata. Cases, however, recovered spontaneously.

Dr. G. H. Fox was always pleased to hear any one speak with confidence of any treatment of alopecia areata, as Dr. Bulkley had done of carbolic acid. He was rather skeptical of any remedy. A strong solution of ammonia had proved as effective as any in his hands. He thought that general treatment of the patient was quite as important as any local application.

Dr. J. E. Graham had never seen any cases that would lead him to believe that alopecia areata was contagious. He did not think that because anti-parasitic remedies were useful that this was a proof of the parasitic nature of the disease.

Dr. P. A. Morrow thought that there had been a sufficient number of cases of contagion reported to satisfy any reasonable doubt of the contagiousness of the disease. He quoted Eichhoff's report, in which a number of cases were traced to one barber. He had had one case of probable contagion.

Dr. L. A. Duhring said that in spite of a great deal of study of alopecia areata he had never been able to find any parasite in the disease, nor to be convinced that the disease was contagious. He believed that there was a disease simulating alopecia areata, and often reported as such, that sometimes occurred epidemically, but was not alopecia areata. He regarded arsenic taken internally as very valuable in the treatment of the disease. He could see no reason for depilating the healthy hair about the patches.

Dr. J. C. White said that we were still wanting positive evidence of both the parasitic and the neurotic element in the etiology of the disease. Clinical evidence points both ways. He had seen cases of apparent contagion. He

had seen thirty cases of a disease simulating alopecia areata, and that were not cases of ringworm, occurring in an asylum, which probably were instances of the so-called contagious alopecia areata. He did not think that they were true alopecia areata. His favorite remedy was half a dram of croton oil to eight ounces of turpentine, used daily. Of course it failed in some cases, as do all remedies. If it failed he used many other remedies that had been commended, but they did not do any better. He did not believe that there was any specific remedy.

Dr. H. W. Stelwagon had never been able to trace a case to a contagious origin. Local stimulation is more to be relied on in treatment. He was fond of equal parts of turpentine, cantharides, and tincture of capsicum, with arsenic internally.

Dr. J. N. Hyde believed that the time would come when alopecia areata would be regarded as simply a symptom. Some cases were doubtless parasitic and some neurotic in origin. In bad cases he used creosote locally. After say the forty-fifth to the forty-eighth year of life, the chances of recovery were greatly decreased.

Dr. H. G. Keotz had had one case in which hereditary syphilis was probably the underlying cause, the boy getting better when under specific treatment.

Dr. C. W. Allen believed that the disease was parasitic, and thought that he had in his own practice observed a case of contagion. He thought that internal treatment was valuable. Naphthol and pefrogallol had both proved useful in his hands.

Dr. S. Sherwell believed the disease to be of neurotic origin alone. Stimulation was most to be depended upon.

Dr. J. Grindon had never met with a case that suggested either a parasitic or contagious origin of the disease. He believed in its trophoneurotic origin.

Dr. F. B. Greenough used in practice a half dram of carbolic acid in an ounce of water.

Dr. L. D. Bulkley, in reply to a question of Dr. Morrow, said that he used the 95-per-cent solution of carbolic acid only to a small portion of the scalp at a time. It should be brushed



over lightly at first so as to benumb sensibility and then rubbed in more thoroughly. He had not used it elsewhere than on the scalp. The skin is red for a few weeks; this disappears and the hair grows. He also administers strychnia and phosphoric acid, and keeps up the nutrition of the patient.

Dr. R. W. Taylor, of New York, read an account of a case, *Angioma Pigmentosum of Atrophicum*, by Dr. A. W. Brayton, of Indianapolis. It was accompanied by an excellent portrait.

Dr. J. C. White stated that his investigations showed that the disease was not limited to Russian Jews, but was met with also in persons of English and French descent.

Dr. Bronson then read his paper upon *The Etiology of Pruritus*.

### THIRD DAY—AFTERNOON SESSION.

It began with a short discussion of Dr. Bronson's paper on pruritus, in which Drs. Zeisler and Morrow took part, the discussion being closed by Dr. Brown Bronson.

Dr. W. T. Corlett, of Cleveland, then read a paper upon *Diseases of the Skin*, associated with derangement of the nervous system. It was discussed by Drs. Bronson, White, Fox, Duhring, Zeisler, Allen, and Sherwell, who took various views of cases reported, all agreeing that it was very difficult to diagnose what the cases were without having seen them.

Dr. L. A. Duhring read his paper entitled *Experiences in the Treatment of Chronic Ringworm in an Institution for Boys*. He recited the many remedies he had used. In the discussion Dr. G. H. Fox said that Dr. Duhring's experience was both interesting and valuable. He had had considerable experience in the New York Skin and Cancer Hospital. He had found chrysarobin useful, as had Dr. Duhring. He began the treatment by clipping the hair short, and shaving, either only over the patches or over the whole scalp, and applying chrysarobin in traumatization. He was tired of greasy applications. Hydronaphthol plaster, as recommended by an European physician, had proved more satisfactory than chrysarobin. He advocated epilation where practicable.

Dr. J. Zeisler advocated pyrogallol as a

parasiticide. Dr. Duhring, in reply to a question, said that some of the cases recovered in six weeks, and some not for a year. Dr. White thought that white chrysarobin was a good remedy; it was not a safe one to use outside of an asylum or hospital. He recommended a combination of sulphur, carbolic acid, and naphthol, in ointment form. Dr. Stelwagon recommended an ointment composed of tar, sulphur, and citrine ointment. Dr. Sherwell advised keeping the scalp saturated with a mild oil and covered by a skull-cap. Dr. E. Wigglesworth believed that it is necessary for us to have regard to the nutrition of our patients. Dr. C. W. Allen bore testimony to the value of chrysarobin. Dr. L. A. Duhring, in concluding, said that the cases were all well when he left off treatment, and that they remained well for at least one year. Epilation he found did not repay the vast amount of labor it cost. He regarded ointments as most useful remedies.

Dr. J. Zeisler, of Chicago, then read his paper on *Epilation; its Range of Usefulness as a Dermato-therapeutic measure*. In the discussion Dr. G. H. Fox said that he was glad to hear any one advocate epilation in sycosis, as he had found it a most useful remedy. A sulphur paste after epilation is valuable. He had not found epilation so promptly curative as had Dr. Zeisler, while he laid more stress on diathetic management than did the latter. He was sure that epilation was useful in some cases of chronic ringworm of the scalp. Dr. H. G. Klotz spoke also in favor of epilation in sycosis, though he had cured many cases without it, notably with mild naphthol ointments. He thought epilation to be valuable in syphilitic lesions about the hair. Dr. L. A. Duhring had not been able to practice epilations on his patients on account of the pain it caused, specially on the upper lip. He could not see much use in epilating in alopecia areata when the hairs were firm about the patch. Dr. P. A. Morrow said that he did not think that it was necessary to pull out all the hairs about the bald patches, but it was a good thing to make traction on all of them, and to remove all that were loose. Epilation was a requisite in all rebellious cases of trichophytosis. If

the hair is removed by a quick, sudden movement, the operation is nearly painless. Dr. H. W. Stelwagon believed that many cases of sycosis could be cured without epilation. He would speak in special praise of Fleming's solution in trichophytosis, diluting it at first one part to five or six of water, and gradually increasing the strength to just short of marked irritation. Dr. S. Sherwell spoke of the connection between catarrhal conditions of the nose and sycosis of the upper lip. Dr. J. H. Hyde said the last time he was in London and Paris he had observed that epilation was quite generally practiced about the patches of alopecia areata. In closing, Dr. Zeisler said that when epilation was properly performed it was almost painless. As he regards alopecia as a parasitic disease spreading at the periphery, he epilated about the patches to stop their spreading.

#### FOURTH DAY—MORNING SESSION.

The first paper was by Dr. J. E. Graham, upon *Molluscum Contagiosum*. Dr. Bowen said that there was little question but that the disease was contagious. It is still unproven whether certain bodies found in molluscum are or are not coccidiae. Dr. Allen had no doubt about the contagiousness of the disease, and related cases of the disease spreading in an asylum from one case. Excision is never necessary. They can readily be squeezed out and then lightly touched with a caustic. He believed in their parasitic origin. Dr. E. Wiglesworth likewise cited a case of contagion. Dr. J. C. White, while believing that molluscum was contagious, was not prepared to accept the psorosperm as its cause. Dr. J. N. Hyde pointed out that in the statistics for the year just closed 17 cases of molluscum contagiosum were reported, viz., 9 from Boston, 5 from New York, 2 from Chicago, and 1 from St. Louis. Dr. F. B. Greenough believed them to be contagious. In treatment he simply bores them out with nitrate-of-silver stick. Dr. S. Sherwell concurred in the belief of their contagion. Dr. J. E. Graham thought from evidence so far brought forward that the so-called psorosperms were simply degenerated epithelial cells.

Dr. J. N. Hyde, of Chicago, then read his paper, *Note Relative to Pemphigus Vegetans*. In the discussion Dr. L. A. Duhring said that he had had the opportunity of seeing the case described, and would corroborate what Dr. Hyde had said of it. It certainly was more of the nature of pemphigus than any thing else. Dr. Bowen had seen a case of Neumann's in Vienna, and this one brought that one back very vividly to his mind. He regarded the term "pemphigus" as a most indefinite one, and thought that it gave very little idea of the pathology of the case under discussion. Dr. S. Sherwell had seen a case with analogous symptoms in a woman, which was cured by ovariectomy. Dr. J. E. Graham related the history of a similar case of his own. It became much better under arsenic, but suffered a relapse. Dr. J. N. Hyde, in closing, said that in his case there was no disease of the ovaries. He regarded the prognosis in his case as not good.

Dr. H. W. Stelwagon then read his paper on *A Study of Mycosis Fungoides*. It was discussed by Drs. Hyde, White, Hartzell, Bowen, Duhring, and Fox. Dr. Hartzell emphasized the infectious nature of the tumors, and thought that we must look to inoculation experiments for its proof. Dr. Bowen spoke of the disagreement among pathologists in regard to the exact nature of the tumors. Dr. Duhring said that the disease was a general one of the skin, and did not seem to affect other organs to any extent. He believed it to be an infectious disease. It may be regarded as on the border line between an inflammatory new growth and a tumor. Dr. Fox related a case of apparent infection of the disease in the New York Skin and Cancer Hospital. He also spoke of the early diagnosis of the disease, and reported a case that at first looked like an eczema marginatum, but afterward developed the characteristic tumors. Dr. Stelwagon, in closing, said that he found, in looking up the literature of the disease, some fifty or a hundred reported cases. It was exceptional for the disease to begin as tumors.

Dr. M. B. Hartzell, of Philadelphia, then read his paper on *Lymphangioma Circumscriptum*, with report of a peculiar case. It was discussed by Drs. Stelwagon and Bowen.



Dr. H. G. Klotz, of New York, followed with a paper, Remarks on Carbuncle, with report of a peculiar case. It was discussed by Dr. Bowen, who spoke of the remarkable paper by Dr. Warren, of Boston, describing the pathological anatomy of the disease.

Dr. C. W. Allen then made some remarks on Erythema of Nalvus Nuchæ. Dr. Zeisler thought it probable that erythema nuchæ was often due to pressure and rubbing. Drs. Fox, Duhring, Grindon, and White also took part in the discussion.

Dr. J. Grindon read a paper on A Case of Lichen Ruber. Dr. Zeisler would be inclined to view the case as one of lichen planus. In this disease plantar and palmar thickenings are apt to form. Arsenic often cures these patients. Dr. S. Sherwell agreed with Dr. Zeisler in his diagnosis, though the case presented many exceptional features, one especially being the involvement of the nails. Dr. White believed the case to be one of lichen planus, and spoke of the uncertainty surrounding the whole question of the lichen group. Dr. Hyde said that he always found the polygonal outline of the papules to be well marked, something that does not seem to be familiar to the Germans and French. Dr. Duhring agreed with the previous speakers in this diagnosis. The polygonal shape and umbilication are often wanting.

### THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated meeting, October 2, 1891, Dr. W. Cheatham, President, in the chair.

Dr. A. M. Vance reported a case of injury of the ankle which produced great tenderness over the region supplied by the anterior and posterior tibial nerves. Quinine, arsenic, and iodide of potassium were given without effect. A neurectomy was done, which gave immediate but temporary relief. The patient was about in two weeks. Since that time he has had pain enough every night to keep him awake. Has tried many remedies without relief.

Dr. J. W. Irwin suggested as a cause of the pain, synovitis following traumatism.

Dr. W. L. Rodman said he did not know the

cause, but that his experience with neurectomies was exactly similar.

Dr. W. C. Dugan could offer no suggestion as to the nature of the trouble, except possibly a chronic inflammation of the synovial membrane.

J. A. Larrabee said we sometimes overlook the hysterical element in the consideration of these nerve lesions. The periodicity is not especially valuable except in regard to the mental impression. He suggested hypodermics of morphia.

Dr. Vance said he did not know what the pain was due to. He could not believe it to be a lesion of the synovial membrane. He was inclined to think it some trouble with the nerve.

The essay of the evening was read by J. A. Larrabee, M. D.; subject, Some Practical Therapeutic Points. (See page 257.)

### DISCUSSION.

Dr. Irwin: I have had considerable experience with peroxide of hydrogen. After it has been used to a great extent we see a pseudo-membrane forming in the throat. I think thirty times a day a too frequent use of peroxide of hydrogen in diphtheria. Digitalis controls exosmosis from the vessels, and it is in such conditions that digitalis should be used.

Dr. W. O. Roberts asked why a mop was used instead of a spray.

Dr. Larrabee: I found the spray unsatisfactory in children's practice. The tongue rolls back and prevents the application of the drug to the diseased part. I have never seen a pseudo-membrane formed by the use of peroxide of hydrogen.

Dr. A. M. Cartledge thinks the mop is preferable to the spray.

Dr. H. T. Stucky said it was difficult to spray a young child's throat. The mop frequently does harm. The membrane is sometimes torn away by violence, and not as result of action of peroxide of hydrogen.

Dr. Wm. Bailey: A mop carefully prepared can do no harm of itself. The spasm of the throat presses the fluid out of cotton and thus makes the application perfect. The essayist's advice in reference to heart medicines is good.

Digitalis should be used in organic lesions, and strophanthus for functional troubles of the heart.

Dr. Cartledge did not think there was much danger in forcibly separating the membrane in diphtheria from underlying structures.

Dr. Irwin has for several years in swollen and edematous conditions of the palate and tonsils commended the use of puncture.

Dr. Larrabee: In regard to the action of cardiac remedies he did not think it necessary to elucidate. In the organic lesions of the heart there is no need of a better remedy than digitalis. When the heart is enfeebled and over-distended, as in typhoid fever, we do not need digitalis. In the latter strophanthus and cactus grandiflora meet all indications. In grave diphtheria, with blue palate and fauces, use peroxide of hydrogen. Do the sponging with a probang every hour. In some cases there was copious hemorrhage; these recovered. Diphtheria is a local disease with constitutional infection. Give whisky from the beginning straight through. Give very little internal medication. The peroxide of hydrogen should be fresh and in small bottles.

Dr. Rodman reported the following case: A man, aged forty-five years (looks older), with a good previous history, had vertigo for a month. He fell on the pavement unconscious, and vomited for a day after. The pulse a half hour after the fall was feeble. Afterward it was 40 per minute. He passed no water for fifteen hours. The arteries were hard. There was no paralysis and no heart trouble nor rheumatism. He had symptoms of compression of the brain. There was no bruise or contusion of the head. A little inequality of the pupil was seen. He had a slight dyspnea.

#### DISCUSSION.

Dr. Bailey: Judging from the history, the disturbance in the brain was evidently in the circulation and not a clot or rupture. It was due to stomachic trouble.

Dr. C. E. Skinner had seen a case presenting symptoms similar to that of Rodman's.

Dr. Rodman believes Dr. Bailey's view of the case to be correct.

Dr. Bailey reported a case of typhoid fever

in a child at the early age of eight months. The child had suffered with cholera infantum in the summer, and was at the time of the attack below par in health.

T. H. BULLOCK, M. D.

Secretary.

## Abstracts and Selections.

ANTI-ADULTERATION: THE AMERICAN CHEMICAL SOCIETY ON ADULTERATION. — (From advance sheets of the Sanitary Era. See p. 285).

*Retention of Ammonia in Bread from Baking Powder: A New Chemical Demonstration.* The services of chemistry to medicine, and especially to preventive medicine, are of inestimable, indispensable, and ever growing importance. We have the pleasure of presenting herewith, by the courtesy of Dr. Enderman, of the American Chemical Society, a new and valuable addition to the professional data for determining the hygienic or unhygienic quality of preparations for leavening bread, which was presented by him to the Society at its late meeting in Washington.

We have taken the liberty to direct ready attention to certain points by italic letters or sub-headings.

*Dr. Enderman's Paper: All Actual Investigators Unanimous.* For several years a controversy has been carried on regarding the use of carbonate of ammonia in baking powders.

The argument of the parties in favor of its use has been that during baking the ammonia is completely volatilized, and that for this reason no harm can come from it. It is true that the literature abounds in statements to this effect, though all of these statements are simply opinions and *not based upon actual experiment*. Those in favor of its use do for this reason not take into consideration [find no occasion to consider] the question of the medicinal nature of ammonia salts. On the other hand, *all actual investigators* have stated that the ammonia is not dissipated from the bread in baking; and the general explanation so far has been, that the ammonia carbonate at first dissociated by heat is, on cooling, recondensed by the formation of ammonia bicarbonate, and thus stays in the bread (Prof. Hilgard). All those have found it necessary to consider the action of ammonia and its salts upon the human system.

*But an Additional Mode of Retention is Discovered.* 1 The ammonia is retained by the gluten in chemical combination.

2. The gluten is by reason of this combination altered in its chemical properties.



*Factors in this Demonstration.* In Ch. Gerhardt's Organic Chemistry (German edition), Vol. iv, p. 503, it is stated that "the vegetable gluten is distinguished from the vegetable or plant fibrin by its solubility in alcohol and the ease with which it dissolves at ordinary temperature in dilute ammonia."

"If this ammoniacal solution be heated to boiling and then acetic acid is added drop by drop, a thick white coagulum is produced even long before the ammonia is saturated, which possesses the properties of boiled casein or coagulated albumen."

"The coagulum contains still ammonia, which may be removed by boiling with water to which some acetic acid has been added."

"If wheat gluten be treated with dilute ammonia we obtain a residue of fibrin and a turbid solution of gluten. The latter boiled with acetic acid yields the same white coagulum."

So far Gerhardt. It remained now to be seen whether the carbonate of ammonia under the conditions of baking would produce the same results.

Three loaves of bread were baked.

1. The first with a powder mixed from cream of tartar, bicarbonate of soda, and flour: [in other words, a pure and genuine baking powder].

2. The second with a powder mixed from bitartrate of potash, tartaric acid, bicarbonate of soda, carbonate of ammonia, and starch. [In fact, one of the baking powders in common use].

3. The third with carbonate of ammonia only.

*Chemical Examination and Result.* About equal portions of the bread were macerated with proportional quantities of water. When the crumbs of No. 1 had settled they looked white. Those of Nos. 2 and 3, brownish.

Equal portions of the filtrates were distilled with caustic soda. There was no ammonia in the distillate of No. 1, while those of Nos. 2 and 3 contained ammonia.

Other portions of the filtrates were heated to boiling and acetic acid was gradually added. No precipitate was formed in filtrate from No. 1, while in filtrate from Nos. 2 and 3 precipitates of the character given by Gerhardt were obtained.

These experiments prove, therefore, not only the retention of the ammonia in the bread, but also its action on the gluten, and go far to argue against the use of ammonia carbonate in baking, inasmuch as they demonstrate an action of the ammonia upon the nutritive and digestible properties of the flour [giving it, under the gastric acids, the character "of boiled casein or coagulated albumen."]

*Analytical Data.* 1. Half a pound of flour,

4½ grs. baking powder, and water and salt to suit, were baked for 90 minutes. Of the bread, the water extract of 10 grs. was examined for dissolved gluten, when no precipitate was formed. An equal quantity examined for ammonia. None.

2. Half a pound of flour, 4½ grs. baking powder, and water and salt to suit, were baked for 68 minutes. Of the bread, the water extract of a quantity of bread, 7.62 grs., was distilled for ammonia. 0.3 cc. of ½ normal acid found saturated by ammonia. Acetic acid and boiling produced precipitate.

3. Half a pound of flour, 4 grs. ammonium carbonate, salt and water to suit, were baked 78 minutes. Water extract from bread gives a precipitate by boiling and the addition of acetic acid. Water extract of 7.5 grs. bread distilled with soda: 1.5 cc. ½ normal acid found saturated by ammonia.

Weight of cold loaves of bread: (1) 378 grams; (2) 345 grams; (3) 382 grams.

*Medical Authorities on this Ammonia Diet.* In the first place it is stated that ammonia is an excrement and not a nutriment. It is a body, which in the system may form urea by loss of water, while urea may again form ammonium carbonate by combination with water. But ammonia in quantity is found in blood or urine only in disease. The ammonia or its carbonate neutralize the gastric juice, and therefore interfere with digestion. There is also no doubt that ammonia is an active therapeutic agent. Already Van Hasselt speaks of ammonia as a poison, and speaks of acute poisoning and chronic poisoning by ammonia. (See German edition Van Hasselt, 1862, Vol. II, p. 185). He defines chronic poisoning as follows: "Primitive chronic poisoning by ammonia may ensue from either too long continued use of carbonate of ammonia or chloride of ammonium, or its use in too high medicinal doses."

The symptom is gastritis chronica, with secondary symptoms arising from degeneration of the blood. Half a dram of chloride of ammonium kills a rabbit within one hour (Mitscherlich). Orfild found that the carbonate was a still more active agent.

The latest investigations regarding ammonia are by Prof. Pettenkofer, of Munich, with assistance of K. B. Lehmann (*Bayr. Akad. der Wissensch.* 1887). Three parts of ammonia in 10,000 parts of air is for unaccustomed human beings the highest bearable quantity. Pettenkofer thinks that the poisonous action of the ammonia, like that of carbon monoxide, is due to its action upon the nervous system and especially the nerve centers.

Winslow Anderson, M. D., of the Medical Department of the University of California,

states it as his opinion that the American disease dyspepsia is due to the use of baking powders containing ammonia and other adulterants.

These citations, which might be multiplied considerably, may suffice to show that ammonia is considered by the medical profession not a safe substance to be used as a daily article of diet.

*Discussion of the Paper.* A private note from Dr. Enderman adds that "The consensus of opinion as expressed during the discussion was against the use of carbonate of ammonia in baking powder, with the only exception of Prof. McMurtrie, who is an employe of one of the companies which use carbonate of ammonia in their baking powders.

"Prof. Barker, M. D., of the University of Pennsylvania, who is the President of the Society and one of our highest authorities, said in answer to a pleading by Prof. McMurtrie that only small quantities of ammonia were used in baking powders: 'No matter how small the quantity, I must decline to be dosed medically without my consent when taking my meals.'

"E. H. Bartley, M. D., formerly chemist of the Brooklyn Board of Health and now Professor of Chemistry at the Long Island College, did not, I think, take active part in the discussion, but is already on record as strongly opposed to the use of amm. carbonate in baking powders."

[He says of it: "As this drug is not wholly expelled from the dough in the baking process, and as most medical authorities agree as to the injurious effects resulting from the continued use of ammonia, its use in bread should be strongly condemned."]

*Chemistry in Place and out of Place.* It will be observed that Dr. Enderman and his colleagues (with only an exception yet to be noted) conduct the investigation to its chemical limits, and then, in the spirit of true science, relinquish the medical conclusions suggested by it to the profession which properly has cognizance of that subject. That this cardinal propriety has been often transgressed by certain chemists is a matter of grave complaint and public detriment. It is natural for chemists, like other thinking men, to have their general ideas on many medical questions, and it is natural for the indiscriminating public to attach professional authority to whatever they may say on those questions, whence arises a necessity for peculiar circumspection to avoid giving conclusions from the chemist's standpoint on the hygienic or medicinal properties of waters, foods, etc. The fallibility of such conclusions (although they are accepted *ex cathedra*) is sufficient objection to their utterance.

But there is a further evil in the practice to which that is slight. It opens the door for a venal element in the chemical profession, which we are sorry to say has not been slow to accept large fees and salaries for puffing commercial interests in a quasi-medical capacity, which is practically a fraud. It now especially behooves the associated authorities in this high and honorable profession to take measures for the protection of its honor and of its public usefulness, in view of the most flagrant abuse of professional position which we have ever witnessed, and to which we are about to call attention. The action of the medical profession is also called for in a direction where its most salutary prerogative needs to be defended at once from usurpation and prostitution.

*An Amazing Professional Outrage.* We learn from good authority that through the instrumentality of a member of the American Chemical Society in official position and at the same time in the employ of a party commercially interested in the use of ammonia in baking powder, a report of proceedings at the late meeting was sent out to the press and published to millions of readers all over the world at the expense of the interested party referred to; a report which was false in every particular, by suppression, by implication, and by direct assertion! Suppressing the important investigation reported by Dr. Enderman, and even the fact that any paper at all had been presented, this bulletin described a discussion apropos of nothing, as participated in by a number of the Society's most distinguished members, and as amounting to a general consensus of quasi-medical opinion in favor of ammonia as a particular salutary ingredient in baking powder! That the true consensus of the debate was in loyal accord with the universal judgment of the proper authority on this question, the medical profession, Dr. Enderman has already informed our readers. What the honored President of the Society, Prof. Dr. Barker, really said, instead of the slanderously insinuated deliverance coupled with his name and others in the bogus report, we have printed above on the same authority. It will bear repeating, for it touches the core of the question with a needle point: "No matter how small the quantity, I must decline to be dosed medically without my consent when taking my meals."

Millions of people, deeply interested in the opinions of the American Chemical Society on this important subject, are thus led to believe the exact opposite of the truth, and to not one in ten of them will the authentic record ever come to disabuse them of a most pernicious instruction which has for them all the force of professional sanction, unless the Society shall



take prompt and vigorous action to clear its position from falsification. Indeed, there is reason to fear that without some special interposition the official record itself may appear without its essential feature, namely, the text of Dr. Enderman's new and important demonstration of the chemical degeneration of the gluten in bread by its permanent absorption of ammonia furtively conveyed in baking powders. We suppose that to a well-grounded apprehension of some such chicanery in editing the official report we owe the privilege of printing Dr. Enderman's paper irregularly in advance of the authorized issue.

**EXCISION OF FISTULA IN ANO.**—Fistula in ano is one of those diseases which do not tend to spontaneous cure. Certain slight cases doubtless get well if properly dressed, but in the large majority operative interference is necessary for their relief. The almost universal practice is to lay the sinus open, at the same time dividing the sphincter, and then to pack the gaping wound in such a way as to insure its healing from the bottom. This mode of treatment is, I venture to submit, neither so simple nor yet so uniformly successful as we are generally given to understand. To carry it to the desired end it is almost essential that the patient should be kept in bed, the treatment not infrequently lasting for some months. I have traced several ordinary cases of fistula after their discharge from hospital, and in almost all the results have been disappointing. The average history seems to be somewhat as follows: The patient is operated on, and then dressed in hospital for a few weeks, during which time he makes rapid progress. He then begins to find the continuous rest irksome, and either on this account or because his bed is wanted he becomes an out-patient. His friends are instructed or even shown how to dress the wound, and he goes out. He attends for some time without making much improvement, and then is lost sight of. Some months elapse, when he again appears either very much in the same state as that in which he was last seen, or, worse still, with another fistula due to the bridging over of the wound. This is no fanciful picture, but one based on the careful observation of many cases. Such being the facts, the question naturally arises, Can any thing be done to shorten the time of cure without endangering its efficacy? Obviously the great drawback is that a large open wound is left to heal by granulation, and so must of necessity take a long time. Why should the wound be left open? Is it not possible, after removing all the granulation tissue, to sew the wound up with deep stitches, as is done in plastic operations for ruptured perine-

um? I have done this with very successful results, and will relate one recent case.

The patient was admitted into the North Staffordshire Infirmary, under the care of Mr. Alcock, suffering from a complete fistula, the external opening of which was  $1\frac{1}{2}$  inches from the anal orifice, the internal about an inch up the rectum. I began the operation by thoroughly stretching the sphincter, dilating it first by means of a dilator and then with fingers until I could introduce my closed fist into the bowel, thus completely paralyzing the muscle. I then slit up the fistula in the usual way. The granulating tract was cut and scraped away until two clean raw surfaces were obtained; these were then brought together over their whole extent by four silk stitches, extending deeply into the tissues below the wound, so that the bottom of the wound should be closed as well as the part nearer the skin. The silk had been boiled, and was put in by means of a curved Hagedorn's needle. Nothing untoward happened. The stitches were removed on the tenth day, when the wound was found to have healed soundly by first intention. Now, here is a man who was well in less than a fortnight after this operation, who I believe under ordinary treatment would not have been cured for at least two months. Further, he had hardly any pain after the operation. The bowels did not move for a week, and the first motion, brought about by repeated small doses of cascara, was not painful. The success of the proceedings is very largely due to attention to the following details: (1) Paralyze the sphincter; (2) clear away all granulations; (3) put the stitches in very carefully so as to secure accurate coaptation of the surfaces over their whole extent; (4) use aseptic silk so as to guard against the possibility of stitch abscess. Doubtless many surgeons have done this operation, and I shall be disappointed if I do not learn that it was the common mode of procedure with Hippocrates. As I have not seen it described, I venture to call attention to it as worthy of notice.—*Dr. A. S. Barling, Lond. Lancet.*

**RAYNAUD'S DISEASE; THROMBOTIC WARTS.** A good example of the hereditary form of Raynaud's phenomena is recorded by Mr. Jonathan Hutchinson. The patient was a girl of twenty-four, and since childhood her hands were habitually dusky, and the fingers very liable to "die." A peculiar feature of her case was the formation of little "thrombotic warts" on the sides of the fingers, especially on the index. These consisted of little elevations or thickenings of epidermis, from the size of a pin's head to that of a large shot, and were of a deep purple tint.—*British Medical Journal.*

# The American Practitioner and News

"NEC TENUI PENNÄ."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## TO DETERMINE THE SEX OF THE FETUS IN UTERO.

Some fifteen or twenty years ago the statement by physiologists of the supposed fact that the heart of the male fetus made on an average fewer pulsations per minute than the heart of the female fetus caused a short-lived sensation among obstetric clinicians. The sex of the unborn child was forthwith predicted with epidemic frequency, avidity, and extent, and many mothers were for a brief space made happier or sadder by the assurance that a child of the sex desired or not desired was about to be laid upon her breast. As there was at least one chance in two of making a correct forecast, about one doctor in two foretold the sex in fifty per cent of his cases, with no little heightening of his self-esteem and professional popularity. But, alas! it became apparent to the average diagnostician that this percentage could not be bettered; female fetal hearts refused to distance the records of the hearts of their male competitors, and the new rule took its place among the fads of physic.

This breeze having long since blown over, it remained for some great medical investigator to find some new mode of pre-natally determining the sex. Here it is in all its beauty and simplicity:

The determination of the sex of the fetus becomes an important matter when the mortality of infants and mothers, with reference to the larger size of the head of the male child, is taken into consideration. Dr. Ross, of Belrast, says, in the *British Medical Journal*, that he has been able for some years to positively foretell the sex of a child before birth. This he decides upon from the locality in which the mother says she feels the fetal movements most distinctly. His rule is, if the mother describes the fetal movements as felt chiefly and most distinctly on the left side, to predict a male birth; if on the right, a female. The author thinks that such knowledge will be a gain to the obstetrician in many ways.

This is brilliant. To say that the sex of the fetus can be told by the side on which the mother feels fetal movement, is to say that male fetuses take invariably one position in the uterus, while the female take another, which is imported bosh. The kind of cry the child makes at birth is one of the surest signs of sex. If Dr. Ross can make the fetus cry in utero he will get a sign of real semiological value. But, this failing, the average doctor must wait until the child is born, when palpation and inspection will leave nothing to be desired in the diagnostic way.

## CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

In consequence of the failure of our reporter to make good his promise to us, the expected brief report of this live body does not appear in this issue. We are glad, however, to be able to lay before our readers an excellent report of the Dermatological Section (American Dermatological Association), which by good luck came in from an unexpected source.

The Congress is clearly on a solid working basis, and, being so constructed as to harmonize all the heterogeneities of the many diverse societies of the land, will soon supplant the American Medical Association as the representative of American medicine. The latter, we fear, is too much handicapped by politics and local prejudice to distance its young competitor in any future race.

THE attention of our readers is called to the American Practitioner and News' Clubbing List in this issue. All the leading magazines and periodicals may be found in this list.



## Notes and Queries.

**AMMONIA IN BAKING POWDER.**—Elsewhere in this issue will be found the full text of a paper by Dr. Enderman, of the American Chemical Society, which would seem to show that ammonia is a not infrequent ingredient of baking powders, and that great damage is done the public by its use. The editor of the Sanitary Era sends us advance sheets of the article (see p. 280), and the following stereotyped letter, which is addressed to the profession. To all this we accord hearty approval, but at the same time beg leave to say that our sentiments are fully stated by Josiah Cooke, who, speaking of baking powders in general, says: "*Keep chemicals out of the kitchen.*"

I have the pleasure of inclosing to you in proofs, from a coming number of the Sanitary Era, the text (unpublished) of Dr. Enderman's important paper read at the late meeting of the American Chemical Society in Washington, in which he details his analytical method of identifying and locating carbonate of ammonia retained in combination with the gluten in bread after baking with leavening powders cheapened with that poisonous adulterant. This appears to be a valuable addition to the professional data on the subject, although previous investigators without exception, as he states, have found the drug in bread in various other relations and forms; among the latter, Dr. C. W. Drew, the State Chemist of Minnesota; Dr. Epperman, Chemist of the Dairy Commission; Prof. James A. Dodge, of the State University; Prof. E. H. Bartley, M. D., of the Long Island College; Prof. Witthaus, of Buffalo, and other excellent authorities who have had occasion to conduct similar inquiries. It will also interest you, no doubt, if you have noticed the astonishing report of proceedings in the American Chemical Association in favor of ammonia in food, which has been widely advertised in the disguise of scientific news, to see an authoritative and emphatical denial of that brazen hoax.

I desire, however, more especially to direct your attention to the flagrant violation of medical truth as well as professional propriety by a class of chemical employes who go out of

their province to promulgate quasi medical opinions in favor of ammonia in food, contrary to the clearest dictates of medical science. Pernicious error on such subjects is actually propagated to a great and growing extent by the prostituted influence of professors of chemistry, the limitations of whose authority are not understood by the indiscriminating public.

While the consensus of the medical profession on the popular use of ammonia is too well defined to need re-affirmation for professional purposes, yet eminent medical gentlemen, such as Prof. Barker of the University of Pennsylvania, Prof. Bartley of the Long Island College, Dr. George F. Shrady, editor of the New York Medical Record, etc., have thought proper to warn the public frankly that (as stated by the latter) whatever apparent immunity may be enjoyed for the time, we must look to the cumulative effect of the continued use of this drug in food for impaired digestion and nervous derangements. From such precedents, and from the visible neutralization of your teachings to so great an extent by the intrusion of pseudo-professional dicta from chemical employes, it seems to the Sanitary Era that public welfare demands some explicit general deliverance on the subject from your profession.

Kindly insert your affirmative or negative in the subjoined coupon blank, with any remarks you may be pleased to add, and return the same in the stamped and addressed envelope inclosed herewith, to be published, if agreeable to you, in the Sanitary Era, of which a copy will be duly forwarded to you with thanks. Very respectfully,

W. C. CONANT,

NEW YORK, October 7, 1891.

Editor.

**THE INTERNATIONAL CONGRESS OF HYGIENE.** Of all the events of the month, there is none upon which a greater interest has been concentrated than on the meeting of the International Congress of Hygiene in London. Never before has there been a more brilliant assembly of scientists, and probably the subject-matter of the discussions has never before been of such vast importance. I think, however, I am not wrong in saying that the crowning triumph of the Congress was the discussion on "Immunity"

in the Section of Bacteriology. Here the great men of all nations had their say on this most interesting subject, which was discussed from every point of view. But the key-note of the discussion was undoubtedly given by Dr. Roux in his opening address, and it early became evident that the work would resolve itself into a struggle between those whom we must now call the "humoral" and the "cellular" pathologists.

In introducing the subject of "Immunity, Natural and Acquired," Dr. Roux reminded the section that the great bulk of the work now being done took as its starting point two subjects with which the name of M. Pasteur would always be honorably associated—the attenuation of a virus and preventive inoculation. Pasteur had succeeded in replacing the old dangerous method of conferring immunity by inoculation by the safer one of preventive inoculation with an attenuated virus. The methods he had adopted to obtain this attenuation were two—first, the prolonged exposure of cultures to air at a suitable temperature, and, secondly, the passage of the microbes through the bodies of different species of animals. There were other methods of arriving at the same end, such as the action of heat, antiseptics, compressed oxygen, and light, but the first two methods had been found the most satisfactory. In the early experiments on immunity it was always this attenuated but living virus which had been introduced into the animals; recently it had been found that a similar end could sometimes be obtained by the introduction of the chemical substances produced by the virulent bacteria, without actual introduction of the living bacteria.

Dr. Roux then placed before the section an outline of the doctrine of phagocytosis, associated with the well-known name of Prof. Metchnikoff. It had been proved by this observer that certain mesodermic cells, which he called phagocytes, had the power of swallowing up other cells and bacteria, and that the bodies thus swallowed underwent a process of intracellular digestion. He showed that this power of the phagocyte cells was a most important one in connection with the question of immunity; for if a virus were inoculated into a re-

sistant animal, the microbes were found to be rapidly devoured by the cells, whereas, in the case of a non-resistant animal they remained free. Phagocytosis was thus confined to resistant animals. It would appear also that similar cells are charged with the defense of the human organism, and enter into conflict with the bacteria which infect it. It might be advanced against this statement that in some diseases, such as tuberculosis and leprosy, bacilli were found specially inclosed in cells, and yet the disease prove fatal. This might mean, however, that although in these diseases there is intense phagocytosis, the resistant power of the invader may, under certain circumstances, be too strong for the cells or the other means of protection. Even in fatal cases, however, signs of the struggle were not wanting; certain of the cells were frequently found filled with dead bacilli. The establishment of the theory of phagocytosis did not necessitate an invariable victory on the part of the cells. The fight could, however, only be observed in immune or partially protected animals, and was more evident in proportion to the degree of immunity.

The opponents of the theory might fairly ask two questions: In what manner are the leucocytes attracted toward the microbes? Why are these cells, which in the case of immune animals destroyed the microbes, incapable of doing so in susceptible animals? In order to explain this, Metchnikoff, when he propounded his theory in 1883, made two assumptions: 1. That the cells were attracted to microbes and foreign particles in virtue of a special sensibility shown toward all foreign bodies introduced into the tissues. 2. That in the case of artificial immunity, the cells formed the habit during their preliminary struggle with an attenuated virus by virtue of which they were afterward able to seize on the more virulent microbes. A simpler explanation was now, however, possible. Leucocytes might have the property similar to that possessed by the zoöspores of the myxomycetes, of being attracted by some bodies and repelled by others. MM. Massart and Bordet had found that the products of microbes had a very marked chemical action on leucocytes. When a virus was intro-



duced into the body it proliferated and secreted a substance which attracted the leucocytes to the seat of growth. In proportion as the power of the virus was greater, so much the more energetic became the poison secreted by it, till, in certain cases, the cells which flocked toward the bacilli became paralyzed by it and rendered incapable of taking up the microbes, which were, therefore, able to multiply without hindrance. Again, in certain diseases, such as chicken cholera, the virus appeared to be still more powerful and to exert a power on cells, even at a distance repelling them. This would explain the entire absence of phagocytosis in chicken cholera. But if the inoculated animals had been previously rendered immune, either by injections of attenuated virus or of certain doses of the bacterial products alone, then the conditions were changed. In this case introduction of virulent microbes was followed by an attraction of phagocytes toward the seat of inoculation, in the same way as occurred in other diseases, and these acclimatized cells possessed the power of inclosing and digesting the microbes before they had time to secrete a lethal dose of their poisons. The battle took place at the very commencement. If the leucocytes were not victorious then, their powers were afterward entirely paralyzed by the defensive poison secreted by the microbes, which, therefore, gained the day. It would be seen, then, that every cause which interfered with the entrance of leucocytes to the seat of inoculation favored the chances of general infection. The theory of M. Metchnikoff did not, however, exclude other factors in the protection of the organism. It only claimed for the phagocytes a wider sphere of action and a greater protective power than any other means. It seemed to explain all the observed facts, and, far from being disproved by opposition, gained in probability with every fresh attack, which was a proof of its soundness.

After this admirable introduction, which was listened to with great interest, came very free criticisms from the partisans of the "humoral" theory. These seemed to be agreed as to the inefficacy of the cells, but are by no means at unity in regard to the actual factor in the blood or serum which produces immunity.

The first speaker was Dr. Buchner, of Munich, who said he could not accept Metchnikoff's doctrines, for four reasons:

1. Many observers had failed to observe phagocytosis even in white rats inoculated with anthrax (these animals being most resistant to the disease).

2. In diseases ending fatally, such as tuberculosis, mouse septicemia, etc., the microbes were frequently found in the cells, and yet death took place.

3. The experiments of Petruchky, Baumgarten, and others showed that anthrax bacilli, even if protected against the action of the leucocytes, perished in contact with the living fluids of the body of immune animals. He thought that the experiments of Metchnikoff, which seemed to show that these very fluids were an excellent pabulum for anthrax bacilli, could be explained by the fact that he introduced more bacilli than could be destroyed by the living fluids of his animals; a given quantity of serum had only a certain germicidal value. If certain microbes were placed in a given quantity of serum, one of two things might happen—either they would be completely destroyed, or they would flourish luxuriantly, their fate depending on the number introduced. If, instead of placing them directly in contact with the serum, the microbes were wrapped in sterile cotton-wool before introduction, and thus protected in some measure from the action of the great body of the serum, it would be found that after twenty-four hours they would begin to multiply vigorously. The bactericidal value of serum, therefore, disappeared soon after death.

Buchner, therefore, regards the migration of leucocytes to the point of inoculation as a secondary phenomenon. He supposes that the bacilli first wage war with the blood and serum, and that, being weakened thereby, they discharge the protein substances from their interior. These latter substances have been said to possess a powerful attractive force for leucocytes—far more powerful than that of the products of bacterial growth in cultures. Thus all that Buchner will admit for the cells seems to be, that they may come to clear the field of *débris* of weakened bacteria, produced in

their conflict with the serum. The facts which he advances to prove a connection between the immunity of a given animal against a given disease and the bactericidal action of its blood on the microbe producing the disease are the following: (1) The blood and serum of immune animals have a powerful bactericidal value. (2) The blood and serum of susceptible animals have no bactericidal power on anthrax bacilli. (3) The blood and serum of animals rendered artificially immune have a greater bactericidal power than those of unprotected animals. (4) A virus grown in the blood or serum of an artificially immune animal always becomes less virulent toward unprotected animals.

The crowning point of interest in the discussion was reached, however, when Prof. Metchnikoff himself rose to reply to his opponents. He was greeted with most enthusiastic cheers, and had evidently been saving himself for this opportunity. Although generally—and partly, probably, because French is to him a foreign language—a very quiet speaker, he on this occasion spoke with extraordinary energy, and certainly with the language borrowed many of the oratorical manners of our French *compères*. He considered that of all the arguments which had been raised against the theory of phagocytosis, the most important was that raised by Behring and Nissen—viz., that the serum of guinea pigs acclimatized to the vibrio Metchnikovii had bactericidal powers on the same vibrio. The serum of these animals would kill the vibriones in a few hours, although they multiplied freely in the serum of normal animals. However, was this fact, as Behring thought, capable of affording a complete explanation of the acquired immunity of protected guinea-pigs? Prof. Metchnikoff declared that his own researches proved the contrary, for on studying the phenomena which occurred in the living animal he at once noticed that the bacilli introduced into immune guinea-pigs remained alive for a very long time. In order to see this, it was only necessary to inoculate a pigeon with the vibrio Metchnikovii, and after a time to take a drop of the exudation from the seat of inoculation. This, when placed in

a warm chamber and examined under the microscope, showed a large number of microbes inclosed in cells, and some also in the liquid portion. The cells died after their removal from the body, and one could observe the microbes developing in their interior, causing the cell to swell and eventually to burst, setting free the contained microbes. On taking a trace of this new and luxuriant culture and introducing it into the dead serum of an immune guinea-pig, not only was the serum unable to kill the vibrios, but it furnished a very excellent nutrient medium for them—better even than that from an unprotected guinea-pig. Thus the study of the phenomena in living immune animals furnished further evidence in favor of the phagocytosis theory. No theory of attenuation in the body of an immune animal, or of neutralization of the toxine, could apply to this case, for the microbes remained very virulent, and even immune animals are found to be quite as susceptible to the toxine of the vibrio as unprotected animals. One must, therefore, said the professor, never be content with studying the phenomena of immunity outside the organism. Buchner had insisted that in order to demonstrate surely the bactericidal power of serum it was necessary to take a small quantity of the microbe and mix it well with a large quantity of the serum in a tube. If the experiment were conducted as in the case in which cotton-wool was used to protect the microbes for a time from the serum, no bactericidal power was evident. Now, when we inoculated animals, did we not introduce a small mass of microbes under their skin, which did not spread freely in the blood and the surrounding tissues, but remained localized somewhat as in the case of the cotton-wool protected microbes? In his opinion, this experiment of Buchner's threw no doubt upon the phagocytosis theory, but was distinctly in its favor.

Summing up his researches, he came to the conclusion that phagocytosis occurred whenever an animal recovered from an infectious disease; the death of the animal was proof of the absence or insufficiency of the process of phagocytosis.



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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

## Original Articles.

### CANNABIS INDICA AS AN ANODYNE OR HYPNOTIC.\*

BY J. B. MATTISON, M. D.

*Medical Director Brooklyn Home for Habitués; Member American Medical Association, American Association for the Cure of Inebriety, New York Academy of Medicine, New York Medico-Legal Society, New York Neurological Society, Medical Society of the County of Kings.*

Indian hemp is not a poison. This statement is made just here because the writer thinks a fear of its toxic power is one reason why this drug is not more largely used. This mistaken idea lessens its value, because it is not pushed to the point of securing a full therapeutic effect. This is a fact. One of the best pharmacologists in this country not long since expressed a very touching solicitude lest the writer's advocating robust doses of this valued drug might cause a decrease in the census that would seriously imperil his professional good repute.

There is not on record any well-attested case of death from cannabis indica. Potter says, "Death has never been produced." Hare asserts, "No case of death from its use in man is on record." Bartholow affirms, "Cases of acute poisoning have never been reported." Stillé states, "We are not acquainted with any instance of death." Wood declares, "Hemp is not a dangerous drug; even the largest doses do not compromise life. No acute fatal poisoning has been reported." A prolonged personal

experience, compassing the history of many cases—men and women—and hundreds of doses, ranging from 30 to 60 minims of the fluid extract, has never brought any anxiety along toxic lines.

Having thus brushed aside this bugbear, we may note, *en passant*, the statement on high authority—Potter—that "cannabis was formerly much employed as an anodyne and hypnotic. It is now somewhat out of fashion." Why this early repute has not been continued is due to a cause cited, coupled with non-reliable products, and doubtless the coming of other analgesic-soporifics. The first cause need not longer obtain; the second can be removed by careful choosing and trial; while the last should not preclude the use of a drug that has a special value in some morbid conditions, and the intrinsic merit and superior safety of which entitle it to the place it once held in therapeutics. Digitalis for a time was in disuse. So, too, codeine, which my experience has proved a valuable anodyne—one worthy a wider use than it has had, and which I think it will surely get—and impelled me to present the American Medical Association, at its last meeting, with a paper thereon that I trust you have done me the honor to read.

There is a consensus of opinion among writers on therapeutics as to the anti-agrypnic, analgesic and anesthetic power of Indian hemp. For the latter it was used prior to ether. Wood, testing it in himself, asserted "marked anesthesia of the skin all day." Stillé says, "Its anesthetic virtue is shown in allaying the intense itching of eczema, so as to permit sleep." And that a similar seemingly trivial disorder may have a serious outcome is proven by the fact that a well-marked case of triple addiction under my care last year—a medical man who took daily fifteen grains morphine, with thirty-five

\*Read before the Medical Society of the County of Kings, N. Y., September 15, 1891. (From advance sheets November number Brooklyn Medical Journal.)

grains cocaine, subcutaneously, and fourteen ounces of rum—had its rise in a morphia hypodermic taken to relieve urticaria.

Stillé says, "Its curative powers are unquestionable in spasmodic and painful affections." Noting the latter in detail, its most important use is in that opprobrium of the healing art—migraine. In a paper by the writer, eight years ago, "Opium Addiction Among Medical Men" (Medical Record, June 9, 1883), in reviewing the causes, this was asserted the most frequent. Enlarged experience has not changed that opinion. A case from such cause, woman, ten years morphia-taking, thirty grains by mouth daily, is now under my care. A sister so situated from the same cause awaits similar service, and their mother took morphia for headache till death ended her need.

Ringer says, "No single drug have I found so useful in migraine." He thinks it acts well in all forms, but seems most useful in preventing rather than arresting. He deems it specially effective in attacks due to fatigue, anxiety, or climacteric change. Dr. E. C. Seguin, in 1877, commended it highly.

Dr. Wharton Sinkler, in a paper on migraine, gives first place to cannabis, and thinks it of more value in this form of headache than any other. Richard Green, who first commended it in this complaint, thinks it not only relieves but cures, in nearly all cases giving lasting relief.

In the British Medical Journal, July 4, 1891, Dr. Suckling, Professor of Medicine, Queen's College, Birmingham, writes: "I have during the last few years been accustomed to prescribe Indian hemp in many conditions, and this drug seems to me to deserve a better repute than it has obtained." He calls it "almost a specific" in a form of insanity peculiar to women, caused by mental worry or moral shock, in which it clearly acts as a psychic anodyne—"seems to remove the mental distress and unrest." After commending it in melancholia and mania, he says: "In migraine the drug is of great value; a pill containing one half grain of the extract, with or without one quarter of a grain of phosphate of zinc, will often immediately check an attack; and if the pill be given twice a day

continuously, the severity and frequency of the attacks are often much diminished. I have met with patients who have been incapacitated for work from the frequency of the attacks, and who have been enabled by the use of Indian hemp to resume their employment." In a personal note from the doctor he wrote, "I have used Indian hemp as an anodyne and hypnotic, and find it most useful in both ways. I have never seen any ill results."

Anstie commends it in migraine and the pains of chronic chloral and alcohol-taking. In his work on neuralgia—the best ever written, and one which I advise every one to read, if not read—he says: "From one quarter to one half grain of *good extract* of cannabis, repeated in two hours, if it has not produced sleep, is an excellent remedy for migraine of the young. It is very important in this disease that the *habit of long neuralgic paroxysms should not be set up.*"

Russell Reynolds thinks that in neuralgia, migraine, and neuritis, even of long standing, it is by far the best of drugs. Mackenzie has used it with much success in constant all-day headache, not dependent on anemia or peripheral irritation. Bastian and Reynolds commend it in the delirium of cerebral softening, and the latter says it calms the head pain and unrest of epileptics. In cardiac tumult, in senile insomnia and delirium, and the night unrest of general paresis it acts well.

In some diseases common to women hemp works well. Grailly Hewitt says that in many cases of uterine cancer it allays or prevents pain. Ringer says it is sometimes signally useful in dysmenorrhea. West commends it here. Potter states that its anodyne power is marked in chronic metritis and dysmenorrhea, and Hare thinks it of great value in chronic uterine irritation and nervous and spasmodic dysmenorrhea. Donavan and Fuller claim it of value in migraine and chronic rheumatism, and Mackenzie in hay fever and hay asthma.

In genito-urinary disorder it often acts kindly, in the renal pain of Bright's disease, in vesical spasm, retention of urine, and chordee; and it calms the pain of clap equal to sandal or copaiva, and is less unpleasant. The distress of gastric ulcer and gastrodynia are eased by



it, and in other and varied neuralgias it serves one well. In some cases of advanced phthisis and other cureless disease it will bring euthanasia by allaying pain and unrest.

My experience with hemp covers more than a decade, many cases, and several pounds of fluid extract. It is proper to state that these cases have been solely habitues or ex-habitues of opium, chloral or cocaine. In these often it has proved an efficient substitute for the poppy. Its power in this regard has sometimes surprised me. Both sexes took it, and with some no other drug anodyne was used. One of these—a naval surgeon, nine years a ten-grains-daily-subcutaneous-morphia-taker—recovered with less than a dozen doses. My oldest female patient—sixty-four—found its service complete. Its action has varied, as some cases respond more fully; this during the early abstinence time. Later it has done good in the post-poppy neuralgiæ, especially the cranial kind, and it has calmed mental pain and unrest.

As a hypnotic, Frommuller gave hemp in 1,000 cases. Success, 530; partial success, 215; no success, 253. As such in delirium tremens Potter declares it "the best." Austie thought it better than opium when the pulse is feeble. Phillips asserts it "one of the most useful." Tyrrell and Beddoe say the same. Suckling's opinion has been given. McConnell commends it in the insomnia of chronic cardiac and renal disease. Okley lauds it in the insomnia of severe chorea, especially in children; the tincture "more effectual than any other hypnotic."

My own results prove it a satisfactory soporific, even oftener than as an anodyne; and this, too, under conditions that test thoroughly the power of any drug in this regard, for the insomnia of ex-poppy habitues finds its equal only in the agrypnia of the insane. With many no other hypnotic was used. The sleep has been sound and refreshing. Many cases showed a notable influence to it as regards time—somewhat akin to sulfonal. Two hours sufficed. The first, pleasant stimulation; the second, increasing drowsiness ending in sleep.

Again, I admit my special cases may involve a condition making them more easily subject to hemp hypnosis, but these do not preclude the

wisdom of its trial with other patients in whom it may act equally well.

Writers on cannabis refer to certain peculiar effects—which, in our thinking, are more often peculiar to the patient—that may here be noted. One is a mild intoxication. I say "mild," because the hashish, assassin-like, running-a-muck form is less fact than fancy. It is said temperament largely determines the mental effect, whether it be grave or gay, merry or mad. Most of my cases, when such, have been in a merry mood. Of the hundreds of times given, only once did it excite to violence. That was a young physician, six years ago, in which it came close to a personal assault on the writer that was warded off only by superior strength. The patient afterward avowed no knowledge of such a situation, was profuse in apology, and stated that once, after taking hemp simply to note results, he routed every one out of the house, including his own grandmother.

Catalepsy is a rare sequence. We have seen it once. A woman, twenty-three, brunette, small but active, took in early evening forty minims Squibb's fluid extract as a soporific. After playing cards half an hour she began to be very jolly, and it was suggested she retire. Visiting her later, she was found completely cataleptic. It soon subsided, sleep followed, and no after ill effect.

Failure with hemp is largely due to inferior preparations, and this has had much to do with its limited use. It should never be called inert till full trial with an active product proves it.

Wood thinks the English extracts best. I have used mainly Squibb's fluid extract; to a small extent Parke, Davis & Co.'s Normal Liquid. They are reliable. Hare commends the solid extract made by the latter and by McKesson & Robbins.

Merck has produced two elegant and efficient extracts—cannabinine tannate and cannabinone. They are essentially hypnotic. I show you specimens. The former has been found by Prior, Vogels-gesang, Mendel and others a satisfactory soporific. Prior gave it one hundred times to thirty-five persons, the most with success. In hysteric cases not calmed by chloral

or opium it acts specially well. In the small dose of one grain it has brought sleep when one third grain morphia failed.

Another cause of failure is too timid giving. I am convinced that the dose of books is often too small. The only true way is, once a good extract, push it to full effect. My doses have been large, forty to sixty minims of the fluid extract—overlarge for the non-narcotic habitue; but, as we years ago asserted, habitual poppy-taking begets a peculiar tolerance of other nervines, and they must be more robustly given. Both sexes have taken them, women frequently, with no other effect than quiet and sleep. I think, for many, small doses are stimulant and exciting, large ones sedative and quieting. They are the outcome of an experience with smaller doses that failed of the effect desired. They prove the hemp harmless, and they add proof to the opinion of most neurologists that, once a nervine needed, it is often better to give one full dose than several small ones.

The tincture (3 grains to the dram) may be given in doses of 20 to 60 minims; the fluid extract, 5 to 20 minims; the solid extract,  $\frac{1}{2}$  to 2 grains; tannate of cannabin, 5 to 15 grains; cannabinone,  $\frac{1}{2}$  to  $1\frac{1}{2}$  grains; cannabinone, with milk sugar, 5 to 15 grains; and each repeated or increased till a full effect is secured. It is said that in women cannabinone acts twice as strongly as in men. In headache, periodical or long continued,  $\frac{1}{2}$  to 2 grains solid extract may be given each hour or two till the attack is arrested, and then continued in a similar dose, morning and night, for weeks or months. It is important not to quit the drug during a respite from pain.

I close this paper by again asking attention to the need of giving hemp in migraine. Were its use limited to this alone, its worth, direct and indirect, would be greater than most imagine. Bear in mind the bane of American women is headache. Recollect that hemp eases pain without disturbing stomach and secretions so often as opium, and that competent men think it not only calmative but curative. Above all remember the close genetic relation of migraine relieved by opium to a disease that spares neither sex, state nor condition.

Dr. Suckling wrote me, "The young men rarely prescribe it." To them I specially commend it. With a wish for speedy effect, it is so easy to use that modern mischief-maker, hypodermic morphia, that they are prone to forget remote results of incautious opiate-giving.

Would that the wisdom which has come to their professional fathers through, it may be, a hapless experience might serve them to steer clear of narcotic shoals on which many a patient has gone a-wreck.

Indian hemp is not here lauded as a specific. It will at times fail. So do other drugs. But the many cases in which it acts well entitle it to a large and lasting confidence.

My experience warrants this statement: *Cannabis indica* is often a safe and successful anodyne and hypnotic.

#### IS THE TUBERCLE BACILLUS THE PRIMARY CAUSE OF TUBERCULOSIS?\*

BY T. B. GREENLEY, M. D.

The theory that all tubercular diseases are primarily due to the ferment discovered and named by Koch "*Tubercle Bacilli*" has now been prevalent among the medical profession nearly a decade. It is presumable that this opinion was based mainly on two objective facts, to wit, that the microbe was generally found to be present in tuberculosis, and that when tubercular matter was injected into the guinea-pig tubercular disease resulted.

In writing this paper the author wishes to present some points which he thinks are in contravention to the theory of the microbic origin of tuberculosis:

It would seem strange that if a microbe, flying like dust in the air we breathe, should cause tubercular disease of the lung it should always select the apex of the organ for its action, when any foreign matter that may chance to exist in the atmosphere we breathe would be much more likely to find its way into the base or central portion of the organ, where respiratory function is more active.

I have noticed only one reason to be given

\* Read at June meeting of the Hardin County Medical Society.



why this disease is confined to the apex in the outset. This was, that the apex of the lung is more delicate in structure and weaker in function than the other portions of the organ. If this position was true the idea would be plausible, but we have no evidence, anatomically speaking, of its truth. It is regarded as a law physiologically that the weaker organs are more liable to suffer from disease, especially inflammatory action. But this old-time theory does not always hold good if the apex is the weakest part, as we nearly always have pneumonia commencing in the base of the lung.

If we take into consideration the theory of Laennec, that tubercular matter was deposited into the parenchyma of the lungs from the blood, we might be enabled to understand why the apex is the common seat of the disease. This portion of the organ is in a more quiescent state of action, as it pertains both to respiratory and circulatory functions, which greatly favors deposit from the blood.

Fifty years ago a controversy existed between great men whether tubercular matter in the lung was the result of inflammation or a deposit from the blood.

In my thesis on the subject I took the ground that it was a deposit from the blood, and that the apex was the favored locality, due to its more quiescent state, and not because it was the weaker portion of the organ or possessing less vitality. This comparative quiescent state of the upper lobes of the lungs is due mainly to two causes. In the first place, the upper portion of the chest wall does not afford as great an amount of expansion as the lower portion, owing to its greater proportional amount of bony structure and less cartilaginous; and secondly, on account of the general manner of respiration. In ordinary respiration the apices of the lungs are rarely fully inflated.

The proposition that a state of quietude or partial quiescence favors deposit or leakage is evidently true. We have a verification of it in the difference observed between running water and that which is at rest when we place a boat in each. The boat that may leak in the still water may not leak in the running water.

This phenomenon has been frequently observed by fishermen and other river-men. We also see the same thing in parts which may obstruct the circulation, as from inflammatory action. The slower the blood passes through a part the more liable it is to be affected by infiltration or deposit.

All the old-time so-called scrofulous diseases are now regarded as tubercular, mainly because the bacilli of Koch are occasionally found in connection with them. But I have failed to see a satisfactory explanation of the manner in which the microbe finds its way to the various localities of these diseases, granting the hypothesis that it originates the disease. How does it find its way into the hip-joint in order to set up arthritis?

There are many objections to the theory that these maladies have their origin in microbic action. Perhaps nine cases out of ten of hip-joint trouble in children originate from external violence of some character. Indeed Prof. Sayre is of the opinion that injury of some kind is the prime cause of a very large per cent of all cases.

To be sure, Dr. Gibney does not concur in this view, but great men will now and then disagree. It requires considerable stretch of the imagination as well as a due amount of credulity to think a bacillus could enter the system and by preference locate itself in the hip-joint. Again, it would be still harder to account for when the subject affected had not been in the presence of any case of tubercular disease.

The contagionists contend that the bacilli enter the system by respiration and deglutition, rarely the latter, except by the use of milk from tuberculous cows, other food that may be affected being mostly cooked. Of course, in the former case when disease results the lungs are the organs involved primarily, and in the latter the bowels. The argument then is, that other parts of the system may become affected through the circulation of the blood or lymph vessels from these localities in the lungs and bowels. But can any one remember a single case where a child affected with hip-joint disease was previously affected with consumption of the lungs or tubercular disease of

the bowels? I think a case of this disease secondary either to lung or bowel tuberculosis would be hard to find.

Then, again, how does the microbe enter the system in the cases of common adenitis or lymphadenitis of children. We frequently see this trouble, old-time scrofula, existing among children where there has been no opportunity afforded by which they could get it by contagion. Then, if tuberculous in origin, why so mild in character? It is rare that children die with this trouble; they generally get well, even without treatment. It is less prevalent now than formerly. One would suppose, *a priori*, that if the lymphatic system was surcharged with tubercular matter the whole system would soon become contaminated, and the patient shortly die. But instead we see every day people advanced in years with their necks scarred with the remains of lymphatic ulceration.

Then, again, we have what is termed tubercular meningitis in young children where there is no other organ previously affected by which the brain membranes could become involved through infection. Then the question arises, if it is the primary seat of the disease and of microbial origin, how did the bacilli get there?

We might also cite cases of tumor albus, or what old-time doctors called white swelling, occurring in elderly people who never had been affected with tubercular disease of any kind. These remarks will also apply to tubercular arthritis and to other diseases of bone tissue, etc., in many instances occurring primarily.

The presence of the tubercle bacilli in the sputa is regarded by the profession as positive evidence of pulmonary tuberculosis, and without which the diagnosis is regarded as being very doubtful.

Drs. Gibbes and Shurley, of Michigan, have been engaged several years in making researches in tubercular diseases of the lungs, and have come to the following conclusions:

1. That tuberculosis of the lungs is a dual disease, of two varieties primarily, either inflammatory or non-inflammatory, the inflammatory followed by necrosis or breaking down.

The non-inflammatory commences by the formation of tubercles or a new growth independent of inflammation. This variety is termed tubercular phthisis, and consists of fibrous material.

2. As far as Dr. Gibbes has observed by protracted investigation, he has failed to discover the presence of the bacilli in the formative stage of either of these varieties of the disease, and only in the stage of liquefaction of the inflammatory variety.

3. That tubercular matter injected into an animal will not reproduce a *fac simile* disease; that the characteristics of the resulting lesion differ from the original in its histology.

4. That sputa of a phthisical subject dried in the sun will produce tuberculosis by inhalation in the monkey, and that tubercular matter with bacilli heated to 100° C. injected into a guinea-pig will reproduce the disease.

These experiments show very satisfactorily that there is some toxic element contained in tubercular matter aside from the bacilli which is essential to the development of the disease. This idea was expressed several years ago by Dr. N. S. Davis, of Chicago.

Now the question arises, is this contagious or toxic element present in the first stage of this purely tubercular or non-inflammatory variety of the disease, or is it the result of the microbe ferment or the stage of caseation? But Dr. Gibbes asserts positively that no bacilli are found in this variety of phthisis at any stage, therefore his experiments of heating sputa and injecting guinea-pigs must have reference to the inflammatory variety.

It would be a matter of interest to ascertain whether or not the matter from the lungs of the non-inflammatory variety of the disease contained the same toxic element that is found in the sputa containing the bacilli.

It would be a source of gratification to the profession if Dr. Gibbes would direct his attention to this particular point.

From the investigations and experiments of Dr. G. it is to be inferred that the microbial ferment is only present in the inflammatory variety of tuberculosis, and then only during the stage of breaking down or softening.



## THE COMPENSATION OF MEDICAL EXPERTS.

BY HENRY A. RILEY, A. B., LL. B.

The value of expert evidence is an unsettled matter, and the opinions held by many of the most learned writers are so absolutely conflicting that authority will not decide the question for an investigator. Best, for instance, in his well-known work on Evidence, says, "It would not be easy to overrate the value of the evidence given in many difficult and delicate inquiries, not only by medical men and physiologists, but by learned and experienced persons in various branches of science art, and trade."

Justice Davis, of the Supreme Court of Maine, voiced the opposite opinion some time since in the following words: "If there is any kind of testimony that is not only of no value, but worse than that, it is, in my judgment, that of medical experts. They may be able to state the diagnosis of the case more learnedly, but upon the question whether it had at a given time reached such a stage that the subject of it was incapable of making a contract or irresponsible for his acts, the opinion of his neighbors, if men of good common sense, would be worth more than that of all the experts in the country."

It may be said, in partial explanation of the latter opinion, that it evidently relates to the question of sanity or insanity, and there is an exceedingly wide field for medical expert evidence on matters where insanity does not enter at all.

The unfavorable opinions in regard to expert evidence are, probably in nine out of ten instances, based upon the disapproval of the testimony of the medical experts concerning the sanity of some particular person.

Almost any person believes that he can tell when a man is insane, but there are multitudes of questions where the court and jury would be entirely at sea were it not for the lucid testimony of some person thoroughly informed about a particular science, art, or trade.

It can safely be said, therefore, that expert evidence will never be excluded by the courts, and it depends very much upon the experts themselves whether the public sentiment in

regard to them does not become more favorable.

As experts no doubt will be continually called to help out one side or the other in a large number of suits, it is of considerable interest to know what compensation is allowed or can be expected. It has been occasionally claimed that experts should have the same remuneration as other witnesses, but this is practically so little that an expert of wide reputation would probably refuse it as an insult. Moreover, the reason for requiring ordinary witnesses to testify when paid only what is sufficient for their traveling expenses does not apply to experts.

If the eye-witnesses of a crime or any civil transaction could not be brought into court unless they chose to come, it would be practically impossible to carry on the machinery of courts and justice. The very necessity of the case requires that persons who have knowledge of the material facts at issue should be forced to come to court and tell what they know. For this reason subpoenas issue under the seal of the court, and must be obeyed under penalty of contempt, which may mean fine or imprisonment. To make a subpoena binding, a small sum of money, at times not exceeding twenty-five cents, should be offered to the witness. This is the rule in regard to ordinary witnesses.

Let us suppose, however, that a medical expert of great learning and a special authority on a question involved in a case to be tried, but who is totally ignorant of the special circumstances of the case, should be served with a subpoena and presented with a quarter. Would he be in danger of fine and imprisonment if he did not attend the sittings of the court? His time might be worth in private practice possibly scores of dollars a day. Is the theory of our judicial system such that this is of no consequence, compared with the proper elucidation of the facts of the case at bar?

In one case in the United States courts (*Matter of Roelker*, 1 Sprag. Dec. 276), Justice Sprague refused to compel the attendance of an interpreter who had been properly served with a subpoena, and said that the same reasoning applied to experts. The safer and the more general rule is that the subpoena must be obeyed,

but that when put on the stand as an expert the witness is not obliged to testify until he is paid by the party calling him such a fee as the professional opinion and time spent in court would be worth under ordinary circumstances out of court.

Field's *Medico-Legal Guide*, page 2, gives the following statement of the law: "When a subpoena has been duly served and the fees advanced when demanded, if the witness is entitled to advance fees, it is the duty of the person thus served to obey the command of the writ, and a failure to do so without some reasonable cause, such as physical infirmity or some accident which rendered it impossible, would be a contempt of court, and subject the offender to fine or imprisonment, or both."

The writer gave in the *Reference Handbook of the Medical Sciences*, Vol. II, p. 772, the following condensed statement on the subject, and it may properly be reproduced here:

"It would be an unbearable burden if the greater knowledge a person possessed the more likelihood he had of being compelled to testify in court, unless suitable compensation were made him. It has been fully settled, therefore, that expert witnesses are not obliged to give testimony against their will in cases where they are subpoenaed. They would probably be guilty of contempt of court if they did not obey the subpoena, but they can not be compelled to testify as to their opinions upon assumed facts if they do not desire to. The payment of a proper fee may be made a condition precedent to testifying. If, however, an expert witness begins to give testimony without raising the point of a failure to compensate him, he can not stop of his own motion. He is obliged to continue his testimony until his examination is concluded.

"In a very recent case a witness went through his examination in chief without objection, but would not submit to cross-examination until he had been paid. He declined to answer even when directed to do so by the trial judge, and upon being punished for contempt of court in so refusing, this action was held proper on appeal."

A slightly different question arises when a physician is called, because he has attended

one of the parties and knows the facts in the case. Under such circumstances he will usually be considered an ordinary witness and not an expert. If so, he is entitled only to the trifling compensation given to such witnesses, and this is probably true, though his testimony may be entirely of the expert nature.

The precise point does not seem to have been distinctly decided, but a parallel case is found in an Illinois court. A person was injured by a policeman's "billy" in a street fight, and the attending physician was called upon to testify in regard to the condition in which he found him. He testified without any objection on his part as to the patient's physical condition, and was then shown the "billy," and asked if a blow struck with it on the head would not be likely to produce upon a person a condition similar to that in which he found the patient. The physician asked the court whether the question did not call for a professional opinion, and, being answered affirmatively, he declined to answer until he had been paid his fee of ten dollars. The court directed him to answer, but the physician persisted in his refusal, and was fined for contempt of court. The decision was affirmed on appeal, and it was held that, having voluntarily spoken about the condition of the patient, he could not arbitrarily refuse to answer questions connected with his previous testimony.

The daily papers a short time since reported that a Trenton, N. J., physician, when on the stand, had refused to answer a question in regard to the number of ribs in the human body, on the ground that he had not been called as an expert witness, and the question was a technical one. The judge, it is said, committed the physician for contempt of court on his continued refusal to answer when so directed.

Difficulties in regard to compensation are in most cases, however, avoided by the fact that experts are not usually called unless it is known how they will testify, and an arrangement made in advance in regard to their payment.

Liberal compensation is proper, because they are often obliged to sit through long trials, listening attentively to the testimony brought out, in order to qualify them to give opinions. As



private arrangements are usually made, as has been said, it is difficult to give information in regard to what is considered adequate compensation. Some experts ask and receive, no doubt, large sums, and others are moderately paid, while the cases are not so rare as they might be in which no compensation is justly due, for the reason that the testimony given, while called "expert," is of little or no value in securing justice.

In one adjudicated case a fee of five hundred dollars was held to be reasonable, considering the attention and study which was demanded of the witness.

NEW YORK CITY.

### Societies.

#### THE ACADEMY OF MEDICINE AND SURGERY, RICHMOND, VA.

Stated Meeting, September 15, 1891, President Charles M. Shields, M.D., in the chair.

In order to introduce the subject of diphtheria, which is prevailing to some extent in the city at this time, Dr. Jacob Michaux described a case he is now treating.

When first seen, Sunday before last (ten days ago), the little patient was running about the house and seemed but slightly indisposed, but upon examination it was seen that the glands about the neck were slightly enlarged, the throat swollen, and the tonsils thickly covered by a distinctly yellowish membrane. He was put upon three drops of the muriated tincture of iron, containing one grain of corrosive sublimate to the ounce, tonic doses of quinine, full doses of whisky, and antiseptic sprays, such as peroxide of hydrogen, Blair's chloral-thymol, and turpentine. By the following Friday the membrane had encroached along the soft palate to the uvula, the posterior pharynx remaining uncovered. The patient was permitted to run about the house, was carefully nourished, eating heartily of good, substantial food, up to the day before yesterday, when his appetite began to fail. The tonsils have thrown off one coating of the diphtheritic membrane, but this was almost immediately replaced by another. The uvula shed its first coat to-day.

Dr. John N. Upshur commended the use of iron and corrosive sublimate in the treatment of diphtheria, but thinks the dose employed by Dr. Michaux entirely too small. He prescribes much more heroic doses, using glycerine, which is antiseptic, unctuous, and pervasive, as a vehicle. Thinks the patient should have been put to bed and kept in the recumbent position, as the well-known tendency to heart-failure in diphtheria renders the least exertion perilous to life. Such exercise likewise increases the liability to secondary paralysis. For local use he prefers a gargle of carbolic and boracic acids, painting the membrane with trypsin. He protests against the employment of the solid stick of nitrate of silver, as there is danger of lacerating the throat and starting new points of infection.

Dr. M. L. James said that he wished further to emphasize what Dr. Upshur had said about the necessity for attempting to avert the heart-failure in which diphtheria so frequently eventuates, and as a means to this end commended the use of whisky, but cautioned against exceeding stimulant doses, as an excessive quantity brings about the sedation we wish to avoid. One half an ounce he considers an average stimulant dose for an adult; but, in reply to a question from Dr. Upshur, he said he was convinced that the presence of the diphtheritic poison in the system created a tolerance for alcoholic stimulants. In regard to glycerine, he is of opinion that its use in large quantities may produce an exhaustive diarrhea or inflammatory condition about the kidney; and these facts should be considered when using it as a vehicle for the administration of other remedies.

Dr. Upshur replied that when glycerine acted as an irritant it was because of some impurity. The burning sensation resulting from its use is due to its property of extracting water from the tissues to which it is applied, but this is followed by the increased activity and improvement of the underlying sudoriferous glands. The astringent effect of the iron, when glycerine and iron are administered internally, may impair the osmotic function of the gastro-intestinal mucous membrane. In the treatment of diphtheria local benefit is derived

from the employment of glycerine as a vehicle on account of its tendency to more effectually disperse the iron and bichloride over the affected area.

Dr. Michaux said that for some time it had been his habit to use small doses of iron and bichloride in the treatment of diphtheria, although his object is to saturate the system as soon as possible with these drugs. But experience teaches him that large doses, by upsetting the digestive system and creating intolerance for the remedies, not only defeat this aim, but, by disordering the stomach, greatly impair nutrition. He also realizes the danger of heart-failure and of subsequent paralysis; but where we have an unmanageable, rebellious boy, as was the case with the patient above mentioned, who is eating heartily and assimilating his food—if we had taken this boy and forcibly confined him to bed, would he have digested his food and been well nourished and sustained under the enforced quiet? The doctor therefore submits that under the circumstances the patient has probably done much better than would have been the case if he had been subjected to more rigorous confinement.

Dr. Charles M. Shields urged the importance of avoiding any cutting operation on the throat during the prevalence of diphtheria, as the deposition of the membrane is facilitated by any abrasion of the surface. Injections of antiseptic solutions into the substance of the affected tonsils have been lauded by recent journals; but the experience of New York physicians, with whom the doctor has conversed, is opposed to this procedure. It is too commonly followed by increase of the deposit over the point of insertion of the needle and along the puncture deep into the tissues. He suggested the use of digitalis, in addition to the iron and bichloride, where there is marked tendency to heart-failure.

In reply to a question from Dr. Michaux as to the advisability of using caustic, Dr. M. L. James said that he used the solid stick directly to the membrane, which it seems to chemically decompose, but is careful to avoid the unaffected surface.

JAMES NIMMO ELLIS, M. D.

Reporter.

## Reviews and Bibliography.

**Sexual Neurasthenia (Nervous Exhaustion): Its Hygiene, Causes, Symptoms, and Treatment, with a Chapter on Diet for the Nervous.** By GEORGE M. BEARD, A. M., M. D. Edited by A. D. ROCKWELL, A. M., M. D. Third edition, with Formulas. 282 pp. Price, \$2.75. New York: E. B. Treat. 1891.

It is not easy to decide exactly how much of this work is by the distinguished originator of the term "Neurasthenia," which has taken so marvelously throughout the world, and how much by Dr. Rockwell, the editor of Dr. Beard's posthumous manuscript. If one had unfavorable criticism to make, this might be of some moment, since of the dead *nil nisi bonum*. We must say, however, first of the term neurasthenia that at the hands of the author it embraced quite too wide a range of affections, and at the hands of very many others it has supplied too large a covering for the hiding of ignorance and nescience, and that it fully deserves the restrictions that most of the eminent writers on nervous diseases have placed upon it. The author has a bold, positive, and even dogmatic way of putting points, in his bold and erratic way reminding one of Carlyle. One after reading the work is not surprised to learn that its author should have stated on the witness-stand that he had made a trip to Europe "not to learn, but to teach."

Both by its method and its matter, Sexual Neurasthenia provokes the reader to thought, and in our humble opinion, if he is often provoked to think differently from Dr. Beard, it is none the worse for sound medical philosophy. An instance of this is met in Dr. Beard's theory as to the food man should eat as indicated by the doctrine of evolution. His contention is, that if man is restricted to one kind of food it should be animal, and if animal then the flesh of the species next to him in the scale of development, or, in short, that the best food for man is monkey. On the contrary, the truth is that throughout nature carnivorous animals, the only ones that can show preference for flesh food, eat other carnivora with great reluctance. At all events, patiently observed and recorded facts, and not mere bold assertions, are by all



thoughtful men preferred as a basis for theories.

In the matter of treatment the work is entitled to a larger approval. Indeed the very method and style of the author mark him as the man to succeed with the class of patients contemplated in this treatise. D. T. S.

- 1) **Auscultation and Percussion.** By FREDERICK C. SHATTUCK, M.D. 120 pp.
- 2) **Practical Points in the Management of the Diseases of Children.** By I. N. LOVE, M.D. 141 pp.
- 3) **Practical Intestinal Surgery.** By F. B. ROBINSON, M.D. Vol. 1. 172 pp.
- 4) **Practical Intestinal Surgery.** By F. B. ROBINSON, M.D. Vol. 2. 206 pp.
- 5) **Lectures on Tumors.** By JOHN B. HAMILTON. 138 pp.
- 6) **Pulmonary Consumption a Nervous Disease.** By THOMAS J. MAYS, M.D. 185 pp.

This list embraces six numbers of the Physicians' Leisure Library for 1889 and 1891, published by Geo. S. Davis, of Philadelphia, at the subscription price of \$2.50 a year or 25 cents each.

No. 1, as might have been expected from its eminent author, is an excellent presentation of the subject of physical diagnosis, lacking indeed only sufficient illustration to be ranked with the best.

No. 2 is a racy and somewhat extravagant treatise on the management of diseases of children. Its teachings are sound, and to those who like their dishes with much garnish, who have time for discursion and a taste for hyperbole, it is to be especially commended.

Nos. 3 and 4 present a painstaking presentation of practical intestinal surgery, with the history of numerous experiments on dogs. Dr. Robinson's researches are made in a direction calculated to yield highly profitable results. When we consider, however, the manner in which records of abdominal wounds are kept in this country and reports published, it is almost an insult to our intelligence to offer statistics without doing so with qualifications. The successes are heralded, and failures, as a rule, are concealed when possible. Without experi-

menting there can of course be no progress, but as the matter now stands there can be little doubt that he who treats wounds of the intestines, especially gunshot wounds, without operation will save the greatest proportion of lives.

No. 5 is a series of lectures on tumors. In view of clear and fairly exhaustive works on this subject by men of large personal experience, it is not too much to say that the author has not reflected additional light on the subject nor added to his laurels by the work before us.

No. 6. This is the work of a man who has a mission. He starts out to prove that consumption is a nervous disease, and nearly every item in nosology supplies him an argument. No one can doubt that there is something that goes before the bacillus of tuberculosis, since otherwise all men must suffer, for all are exposed to the contagion; but whether this subtle something belongs in the nerves or not remains to be demonstrated. The work shows much enthusiastic investigation, and if the logic appears much strained, the author may have discovered somewhat in his zeal that others have overlooked, and which may be of real value to science. Here, as elsewhere, the truth is probably found midway between extremes.

D. T. S.

## Correspondence.

### LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The inaugural sessional address of the Pharmaceutical Society of Great Britain was delivered in the theater of the institution. The speaker spoke among other things of the important discovery of the preparation of hyoscyamine from *scopola carmolica*; and, often referring to the method of obtaining pure salicylic acid, he dwelt upon recent examinations of nitrate of amyl, observing that it contained a considerable proportion of iso butyl nitrate, a substance found to possess a much more powerful effect upon blood pressure than the official amyl nitrate. Speaking of the value of the Research Laboratory of the Society, he said that at the present time there were over a hundred

recently discovered herbs at Kew that were believed to possess medicinal virtues. Until, he remarked, the special grace that each could give was discovered in the laboratory, medicine did not profit by the advance of botany.

The third edition of the *Hospital Annual*, which has just been issued, is a volume of over four hundred pages, crammed with information about many of the leading charitable institutions in Great Britain and the Colonies. The publication shows there are hospitals or charitable institutions for almost every conceivable form of suffering and distress. There are hospitals for the eye, the ear, the throat, the teeth, in fact for the whole human fabric. Some hospitals recognize social as well as physical needs. Sick gentlewomen alone are treated at one establishment. There is even an institution for persons of consumptive "tendency," as distinct from those afflicted with the disease in its more pronounced form. The author gives only a few hospitals for India. He has to dismiss Madras in about half a page. If he did full justice to it he would have to issue another volume. In this Presidency alone there are nearly four hundred hospitals and dispensaries for the civil population, not counting those for the military. Even in Rajputana there are over a hundred. There is the same tale to tell of well nigh every other British colony throughout the globe, and even of the settlements in the Chinese treaty ports. Every generous impulse appears to serve as an excuse for a hospital. A man who has the honorable ambition of being remembered by posterity leaves fifty beds. There is a Jenny Lind Hospital at Norwich, and as to the "Jubilees" of every variety their name is legion. It is said that most of the great reforms in hospital management in this country have been due to public agitation, and that Charles Dickens led the way in his great realistic picture of nursing as it should not be. The chapters on the subject of hospital management are most interesting, and tend to show that it is best to discuss hospital management with the help of those most affected by it for good or ill. Sometimes the patients' wishes are left entirely out of account. The staff and the benevolent public govern for him, but not through him. The abuse of hospital

charity by well-to-do working people who are not in the least entitled to it is still very great, though it is to a slight extent thought to be now diminishing in the country as a whole. The subscriptions of patients are beginning to have a marked effect on financial returns. This does not, however, apply so much to London as to other towns. The metropolitan contributions to the Hospital Saturday Fund are relatively insignificant. The system of a properly adjusted scheme of payment for attendance has been tried in some of the great provincial hospitals and dispensaries with encouraging results, as it is thought a man in receipt of good wages ought no more to expect to have medical attendance for nothing than rent and firing for nothing. Mr. Burdett's chapters on this subject and the inquiries into which he has entered are of the highest value, practical and suggestive.

A new Masonic lodge founded for the convenience of the medical profession has been consecrated in London. The lodge is named *Æsculapius*. Mr. J. Brindley James was installed as the first Master in presence of a large gathering of medical brethren.

As might naturally be expected, miraculous cures are announced as having been effected by an inspection of the Holy Coat of Treves. A withered arm has resumed its former plumpness, a cripple has cast away his crutches, and an old woman has recovered the use of her limbs; the blind have received sight and other afflictions have departed, much to the joy and comfort of their former unwilling possessors. These cures are said to be vouched for by medical authorities. The Pope is ailing and is reported to be about to go and take a restorative look at the holy garment.

Dr. Richardson has given an amusing account of the old and the new physic. Dr. Richardson personally remembers one of the old school. He dressed with great care, and carried a gold-headed cane, perforated at the top like a pepper-box, to give free bent to the odors of camphor and other antiseptics within. He cared little about hygiene. He closed the windows of the sick-room and made it a dark and dirty dungeon. Temperature was but an unconsidered trifle in his mind. He had not much faith in



mere natural remedies. The pills, the black draught, the blister, the tonic were his simple rule. He poured in mercury until it "touched the gums," and he gave Epsom salts by the ounce. On the other hand, he was a perfect surgeon. Dr. Richardson points out that one of the most marked changes in the new physic is the separation of the doctor from the apothecary. In the past they were usually one. The apothecary often prescribed; the doctor generally dispensed the medicines. The old generation were universalists, as Dr. Richardson calls them. He says the new are specialists, some ladies boasting of an eye doctor, an ear doctor, a chest doctor, a heart doctor, a brain doctor, besides a "general prac." One lady has gone so far as to enter in her tablets the name of a professional adviser as "very clever for the upper part of the apex of the right lung." In the old days etiquette descended to every detail of consultation. In entering the room the general practitioner led the way and the consultant followed; on leaving, the consultant went out first and the practitioner brought up the rear.

Dr. Proust thinks there is danger of the cholera epidemic in the East extending to Europe via the Gulf of Persia. Ten thousand pilgrims have died at one place. According to Dr. Proust, the bath in which the pilgrims immersed themselves is extremely insalubrious. It is a stone fish-tank of small size. As many as one thousand a day wash in it, and the water is seldom changed. This is at Hedjaz in Arabia; and another reason why it is such a fearful cholera center is the number of sheep slaughtered there. For the last holy season the number slain was one hundred and eighty thousand. On descending to this place the pilgrims fell dead from cholera with a great suddenness, as though killed by lightning.

Professor Tyndall is recovering from his late illness. He is stated to make slow but sure progress, and is able to walk a little by the aid of a stick. The long time he has been confined to bed has reduced his muscles to a state of atrophy, from which they are slow to recover.

At the quarterly meeting of the Society for the Study of Inebriety Dr. Westcott, one of the London coroners, gave a summary of the

results of a tabulation of 1,900 inquests held by himself in London. Of these cases two fifths were children and young persons under 16 years of age; the remaining 1,150 supplied 255 cases in which medical evidence testified to alcohol as a direct factor in causing the death, giving a proportion of one death due to alcohol in every 4.6 cases, a rise in percentage since 1888, when the proportion was 1 in 5.25 cases in the same district of London. Of these deaths due to alcohol 38 were suicidal, 47 accidental, and 170 from natural or unnatural causes. The point Dr. Westcott especially dwelt upon was, that of this class 73 died of syncope due to fatty disease of the heart, leaving 97 to the account of all other diseases. In all the deaths due to syncope there were proved alcoholic excess in more than one third of the cases. The coroner looks upon alcoholic intemperance as the most frequent and important of all the causes of fatty degeneration of the heart.

During the late summer the new sewage works at Barking have been enabled to send out to sea an average weekly increase of 20,000 tons of sludge. Before the new works were completed 70,000 tons was the weekly average disposed of in this manner. It is said that the effluent poured into the river contains less suspended matter than that which is found in the river water itself.

LONDON, October, 1891.

## Abstracts and Selections.

THE PERMANENT CURE OF STRICTURE.—In the London Lancet, September 19, 1891, C. M. W. Moullin makes a strong plea for external urethrotomy in the treatment of stricture of the urethra, claiming to permanently cure cases thereby that have resisted other methods of treatment. Mechanical dilatation can not succeed in a peri-urethral stricture. Pressure undoubtedly causes the absorption of recent lymph, but it can not influence such widely diffused exudation without a degree of force that would do more harm than good. Continuous dilatation is equally ineffectual. How it acts is not quite certain; apparently the irritation it sets up leads to hyperemia and rapid softening of the dense tissue lying near. But this (and experience fully confirms it) can only end as soon as the irritant is removed in fresh con-

densation and recontraction on a scale even worse than before.

Electrolysis is no better. A cicatrix, it is true, melts away before an electric current if it is in contact with the electrode; but this is not the condition in certainly a very large proportion of these cases. There is no real analogy between a stricture at the meatus, due to ulceration and destruction of the mucous surface, and one deep down in the urethra, resulting from the action of a chronic and persistent irritant of much less intensity. In very many of these cases the mucous membrane is quite intact; atrophied, it may be, by pressure, but not destroyed. There has never been any ulceration; traumatic cases excepted, there is no superficial cicatrix, and the lining membrane is still capable of being dissected off and laid out its full width. The exudation that causes the stricture lies in the submucous tissue and the layers outside this; much of it is a long distance off, and it has never yet been shown that an electric current is capable of causing the absorption of tissues that are not in contact with the electrode.

Internal urethrotomy stands on somewhat different ground. If the incision is sufficiently thorough (and it must traverse the whole length and depth of the stricture tissue) it relieves the urethra at once of the primary cause, but this is all it can do. There is no physiological rest for the inflamed tissues around; they are still kept in a state of constant irritation, not, it is true, by the tension of the stricture, but by the accumulation and retention of the secretion of the wound. Nutrition is still impaired, the chronic inflammation still persists; and even if complications such as hemorrhage, urinary infiltration, and suppuration do not occur, more lymph is poured out, and later recontraction follows. At the best all that internal urethrotomy can do in a peri-urethral stricture is to insert a new longitudinal cicatrix in the middle of the old dense stricture tissue without removing this.

External urethrotomy, on the other hand, is free from these drawbacks. The stricture, the original source of all the mischief, is divided thoroughly; hemorrhage, if it occurs, does no harm, as the blood is not retained and has no opportunity of decomposing in the wound; urinary infiltration is impossible, the exit is too wide; the drainage is perfect; and all the tissues around, freed from straining and every other kind of irritant, begin to recover at once. The deeper part of the inflammatory exudation undergoes fatty degeneration and becomes absorbed; the superficial, that which immediately borders the wound, owing to its feeble nutrition, breaks down into pus and melts away;

granulations spring up on either side, the tissues regain their natural texture, and by the time the wound is ready to close the whole of the dense mass is absorbed, and in its place there is merely a thin, pliable scar in the middle line.

There are two drawbacks to this operation—both serious, especially in the case of private patients who do not wish to be confined for any length of time to their beds, or even to their rooms, by any thing connected with a stricture. The one is, that there is an external wound; many patients not unnaturally have a strong objection to being cut, as they express it; the other, that whatever the prospect of permanent cure, immediate convalescence is undoubtedly more protracted, and there is the inconvenience in the mean time of the greater part of the urine passing by an unusual route. For the rest, no other argument against it is of any weight. The immunity that it enjoys from all ordinary surgical complications is quite as great as, if not much greater than, that of internal urethrotomy. Manifestly, if it is reserved for cases in the last stage of all, in which other operations are impracticable, some allowance must be made for this. Rigors and urethral fever are less likely to occur. There is no need to tie a catheter in—a practice I have long since abandoned as most injurious, and without a single advantage in compensation. It is sufficient to pass one at the end of a week, and then every third or fourth day until the wound is sound (with cocaine injected down the urethra and into the wound the proceeding is quite painless), and the scar lying exactly in the middle line, and forming as it were a prolongation forward of the median septum of the bulb, does not in any way interfere with the function of the corpus spongiosum.

There is one small point of interest in connection with this which only further examination can settle. Both in Syme's and Harrison's cases—the only two in which I have been able to find an accurate record of a necropsy—the urethra is described as being funnel shaped at the seat of the old stricture, giving the impression that the floor had yielded. The coincidence is so remarkable that it seems to me not unlikely that the alteration in shape is due rather to the radial contraction of the scar left by the external wound drawing the floor down toward the skin, and thus affording an additional safeguard against recontraction.

The neglect of external urethrotomy appears to have arisen in great measure from the idea that strictures in the deeper part of the urethra are the result of ulceration, like most of those at the meatus. In reality, although this may occur, it is the exception, and the compar-



ison between a cicatrix such as that left by the healing of an ulcer and the lymph that forms a peri-urethral stricture is very misleading. The one is due to suppuration, and, if divided, remains a cicatrix still without having lost (except for the moment) one particle of its power of contraction. The other is the outcome of long-continued chronic inflammation. So far as its pathology is concerned, a peri-urethral stricture is formed of lymph identical with that which makes its appearance in any other part of the body when it is subjected to the action of some slight persisting irritant. If the cause is removed, and no other is allowed to come in its place, the exudation slowly disappears, and the tissues by slow degrees recover their normal condition of nutrition. So long as a stricture is confined to the mucous and submucous layers, it is possible that the indications may be fairly met by intra-urethral measures; in the case of a peri-urethral stricture, one that can be felt from the outside, the anatomy of the part and the function of the urethra render this impossible without an external excision.

*Note.*—Since the above was written I have met with another case in which twenty-six years had elapsed since the operation. For many years the patient had not taken any precaution, but there was not the slightest sign of recontraction.

**TREATMENT OF CROUPOUS PNEUMONIA.**—A review made a few years ago of the cases of pneumonia treated at the Massachusetts General Hospital showed that there was little or no difference in the mortality under various methods of treatment; that whether heroic onslaughts were made on the disease by the so-called anti-phlogistic plan, blood-letting, and active purgation, or whether a purely expectant plan of treatment was pursued, or supporting efforts by stimulation were employed, the percentage of mortality was not materially different. Nevertheless, but few practitioners are ready to admit that their efforts in this disease are without avail, although many will be ready to admit that the results of treatment are sufficiently unsatisfactory to warrant careful attention being given to any plan which offers a rational procedure, no matter how widely it may differ from the methods now generally in vogue.

All authorities are agreed that the danger-point in pneumonia is the heart, but all are certainly not agreed as to the mechanism of this danger.

We are all too prone to regard the left heart as the heart, and to forget that there are two hearts, more or less independent of each other. Dr.

S. Henry Dessau, in the last number of the *Archives of Pediatrics*, reviews the subject quite fully, referring to the work of Dr. A. H. Smith, of New York, in a paper read before the Berlin Medical Congress in 1890. Dr. Smith called attention to the interference with the circulation produced by the engorgement of the lung, and showed that the right heart, and not the heart as a whole, was the main source of exhaustion, and that the character of the second pulmonary sound was a better guide to the conditions present than the pulse. The pulmonary circulation is obstructed by the permanent dilatation of the vessels in the engorged lung, and overcrowding of the right heart necessarily occurs. In the systemic circulation, on the other hand, the arterioles are contracted, forcing the left heart to more rapid and more powerful contractions, which result in overfilling the veins and forcing upon the already overburdened right heart a surplus of blood to be handled. The overcrowding of the right heart from the venous side tends to produce dilatation of the right ventricle before a compensatory hypertrophy can be established. It is not surprising, therefore, that in individuals in whom the nutrition of the heart muscle has been seriously impaired, as in alcoholic or nephritic cases, the mortality from pneumonia should be unusually high.

With this view of the pathology, the treatment, so far as the circulation is concerned, consists in relieving the right heart by increasing the capacity of the systemic arterial system, and by diminishing the pulse rate.

As a means of dilating the cutaneous blood-vessels and producing diaphoresis, Dessau suggests spirits of nitrous ether, Dover's powder, or spirits of mindererus. The warm bath at 95° F., or sponging of the entire body with water at 116° F., is also recommended. The warm bath and hot sponging are given for the purpose of dilating the cutaneous vessels and inducing diaphoresis, and should be so conducted as to accomplish these ends. Conjointly with these means the use of friction to the skin may be advantageously employed.

As a further means of relieving the right heart, efforts should be made to divert the venous blood into the liver, a reservoir capable of holding a great quantity of this fluid. It is also suggested that the increase in blood to the liver will stimulate its functions, among which is to be noted the destruction of poisonous principles in the blood. For the purpose of stimulating the liver he suggests the use of small doses of calomel.

Aconite is mentioned as a remedy which, carefully administered, will reduce the heart's action without depression, and furthermore

assist in dilating the cutaneous vessels and promoting perspiration.

With regard to digitalis, it is urged that it can only do harm by contracting the arterioles of the systemic circulation and increasing the force of the heart's action.

The use of aconite and veratrum in pneumonia has long found favor in the hands of many practitioners, who were unable to reconcile their good results with the objections of the theoretical men who insisted that aconite produced slow collapse.

The favorable action of calomel in pneumonia has been often noted by many practitioners, particularly those of the older school, but it seems reasonable to suppose that, with such indications for its use as are given by Dr. Dessau, better results may be expected than could be obtained by a merely empirical exhibition of the remedy.

While seeking measures to relieve the heart of the strains thrown upon it, it should not be forgotten that there are other features to be considered in pneumonia. The disease is accompanied with various nervous manifestations, evidences of the poison at work, which can not be accounted for simply by the elevation of temperature. These poisons must be directly counteracted or eliminated. Fortunately the means employed to relieve the right heart also assist in elimination, and in this way are probably doubly useful. But the necessity of using the most appropriate channel of elimination in the particular case must not be overlooked. In some instances, particularly in those in which typhoid symptoms, coma, and low muttering delirium intervene, with low temperature, the modern antipyretics, judiciously used, appear to exercise a truly antidotal specific effect.

How far Dr. Dessau's views may be found to stand the critical examination of the future, they are certainly at present worthy of careful consideration.—*Jour. Am. Med. Association.*

**THE PATHOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA.**—It is not long since the subject of puerperal eclampsia was ably discussed before the New York Academy of Medicine, and the views at that time expressed were laid before our readers. But it can not be said that positive conclusions have yet been reached regarding this important topic, and we believe that the discussion on puerperal eclampsia which took place before the British Medical Association last July will interest our readers.

Dr. A. L. Galabin, of London, opened the debate. He showed that there was a pretty general uniformity of belief that the convul-

sions are due to some kind of renal impairment. But he showed that this does not quite solve the problem, since it is necessary to know what causes this renal disease. The experiments of Dr. Blanc were cited as indicating that in the urine of eclamptic patients there is a specific bacillus which when cultivated causes convulsions in some lower animals. Dr. Blanc thinks that this bacillus causes not only the nephritis, but also the convulsions directly. Bearing on this point Dr. Byers cited the investigations of C. Leyden. This observer examined the kidneys of three fatal cases in which there was eclampsia associated with albuminuria, and found "the kidneys large and pale, the cortex yellowish and dull. Microscopic examination showed a very extensive loading with fat, especially in the tubuli contorti; to some extent also in the glomeruli and in the Malpighian capsules. The fact was distinctly present in large drops." When the kidneys had remained for a time in spirits the fat in great part disappeared, and then the organs, on microscopic examination, appeared to be normal; and accordingly he infers that this fatty condition is not a degeneration, but an infiltration. His view is that such morbid conditions are due to a prolonged arterial anemia. He thinks it also explains the rapid recovery that so frequently follows delivery. Further, he regards as causes the changed conditions of pressure which affect the abdomen or the effluent urinary organs.

Dr. Auvard's view that eclampsia is the result of a "strike" on the part of the organs of elimination, especially the kidneys, no doubt represents a truth, but hardly goes deep enough to be called a scientific explanation.

The same may be said of the theory of Stumpf, that under certain circumstances a nitrogenous substance of a toxic nature—it may be acetone or a closely allied body—is developed, which in its elimination irritates the kidneys, and so causes a nephritis.

It seems that we do not know as yet more about the pathology of eclampsia than that there is some convulsive poison thrown into the blood, either through renal disease or infection, or both.

The subject of the therapeutics of eclampsia is more interesting, though here also no great unanimity of opinion was reached. According to Dr. Auvard, the mortality from no treatment at all is only twenty-five per cent, while that following active interference is thirty-one per cent. Nihilist therapeutics should make a note of these figures. Dr. Galabin, however, gives the percentage of mortality at Guy's Hospital under venesection as thirty per cent, while under the use of chloroform it was 20.5



per cent. These figures, however, do not do justice to venesection, since they apply to the period when antiseptics was not used. Dr. Galabin himself favors venesection in certain cases, especially venesection in large amount (forty ounces). Auvar's mortality with venesection was thirty-five per cent. Dr. J. G. Swayne, in an experience with thirty-six cases, found venesection the most efficacious remedy, chloroform and chloral next, and delivery third. Most of the other speakers recommended chloral and chloroform, and venesection in plethoric cases. Little reference was made to the use of morphine or hot baths or pilocarpine, and on the whole we should say that English physicians depended chiefly on the chloral-chloroform treatment. The morphine treatment, which may be considered especially an American one, is evidently but little used.—*Medical Record*.

**IMMUNITY AGAINST CROUPOUS PNEUMONIA.**—While upon the subject of the treatment of pneumonia, the experiments of Prof. Emmerich, of Munich, relating to the production of an artificial immunity against this disease, and to curing the same, should be noticed. Emmerich has just reported his experiments before the late Congress of Hygiene and Demography in London.

From previous experiments Emmerich has been led to believe that immunity against infectious disease is produced by a toxine inimical to bacteria, but innocuous toward the cells of the animal body. In an immune animal, at least soon after immunity has been produced, this substance should be found in its blood and other tissue fluids.

By subjecting a rabbit to an intravenous injection of a very dilute but completely virulent culture of the diplococcus pneumoniae Fränkel, it is rendered immune. Rabbits so prepared were killed, skinned, divided, and rubbed up into a fine paste, which was pressed through the meshes of a clean, sterilized cloth. The bloody juice was kept for twelve hours at a temperature of 10° C. (33.8° F.), then sterilized by passing through a Pasteur filter. Twenty-six rabbits, one of which had been subjected to an injection of the immunizing juice, were subjected in an inhalation apparatus to the action of a spray of bouillon culture of diplococci. All died speedily except the one animal protected by the immunizing juice.

In a second series of experiments seven mice were injected with a virulent culture of the diplococcus pneumoniae, in quantities varying from 3 c. c. to 5 c. c. Six of them were then injected with the immunizing or curative juice, as it may now be called. In forty-four hours the unprotected mouse was dead, the autopsy

showing diplococci in the blood and internal organs in great quantities, while the other six mice were all well. As these last experiments were made during the last three days of July, we must wait further for fuller returns.

In a further experiment with three mice the first two were injected with .5 c. c. and the third with .3 c. c. of a virulent culture. Five hours later the first two mice received 2 c. c. of the curative juice, but not of a fresh preparation. The following day all of the mice were sick, the third being worse than the first two. The first was given an injection of 1 c. c. of perfectly fresh curative juice, whereupon it recovered rapidly. The second and third both died.—*Jour. Am. Med. Association*.

**THE MECHANISM OF IMMUNITY FROM INFECTION.**—Drs. Emmerich and Mastbaum have published an article on the cause of immunity from infectious diseases and their treatment, especially of swine erysipelas, and a new method of protective vaccination for it. Emmerich published in the year 1886 his doctrine that the cause of immunity from infectious diseases is a modification of the chemical process going on in the cells, so that the new chemical compounds formed act as microbe killers, without doing any harm to the cells themselves (*The Lancet*). In consequence of the results of a series of experiments, Emmerich concluded that the anti-bacterial poison acts destructively on all the microbes within a few hours after their introduction into the organism. The publication of this doctrine having met with a good deal of opposition, he repeated his experiments, and again arrived at the same result, showing that the explanation of immunity from infectious diseases proposed in 1886 was justified. Granted the correctness of this, it follows that extracts from the tissues of any animal enjoying immunity are remedies against the corresponding infectious disease. Further experiments are now reported by Drs. Emmerich and Mastbaum, which show that an extract from the various tissues and the blood of rabbits, which have been made proof against swine erysipelas, is an excellent remedy for the disease, and that a hypodermic injection of the extract can serve as a rational protective inoculation. A rabbit was inoculated by having injected into the posterior auricular vein the fifth of a cubic centimeter of a fresh broth culture of swine erysipelas diluted with fifty times its volume of distilled water. In the course of the following week or two a series of hypodermic injections of the same liquid was administered. For the purpose of preparing a liquid extract suitable for therapeutic or prophylactic purposes, the organs of the rabbit

were cut up and submitted to a pressure of from three hundred to four hundred atmospheres, and the expressed juice filtered into sterilized bottles. A large number of white mice as well as rabbits were now inoculated with the swine erysipelas, and at the same time, or very shortly afterward, an injection of the liquid extract was administered to some of them. These remained alive, while all the others—that is to say, those which had not received an injection of the liquid extract of the organs of the infected rabbit—succumbed. Other experiments were carried out by which it was shown that this same liquid extract is capable of conferring immunity from the disease. Further experiments were made which showed that most of the bacilli were destroyed in six hours, and that in eight hours all were dead, or at least incapable of multiplication, but that the liquid extract produced extremely little effect upon the same bacilli outside the organism, so that the presence of living cells is evidently necessary for the destructive effect of the liquid extract to manifest itself. Another interesting result obtained was that bacilli taken fresh from the body were much more active than their cultures in broth.—*Medical Record*.

**REFRIGERANT LANOLINE UNGUENTS.**—Professor Unna gives in the *Therapeutische Monatshafte* the results of numerous experiments with lanoline and ointments made therefrom. Among the earlier researches of himself and others it was thought advantageous to mix water with lanoline in order to get a good base for a variety of cooling unguents, this being done for the reason that very considerable quantities of water or aqueous solutions could be incorporated with lanoline, and it came to be thought that these mixtures would have refrigerant properties in consequence of the continuous evaporation of their contained water by the heat of the surface of the body. But the results did not at all confirm the hypothesis, for even if such lanoline and water ointments did appear at first to be cooling, this sensation disappeared quite rapidly and was followed by a sensation of heat. Unna then discovered that an admixture of lanoline with fats will take up large quantities of aqueous solutions, and yield combinations that are continuously and in a high degree cooling. Hence, according to Prof. Unna's explanation, it is to be assumed that the anhydrous lanoline holds the water too closely, so that evaporation can not occur with sufficient rapidity, but by mixing fat or oil with it the compound is rendered less tenacious of water, and therefore the desired degree of evaporation can quite readily take place. Unna reckons that the best proportion of lanoline, of glycer-

ine fats, and of aqueous solutions is as 10.0, 20.0, 30.0 for the compounding of a cooling ointment; while, if he has in view a cooling cream (cremor), the proportion should be 10.0, 20.0, 60.0. A simple refrigerant ointment, to be used as a cold cream, may be made as follows:

Anhydrous lanoline.....	10.0
Benzoated lard.....	20.0
Rose-water.....	30.0

The following is a lanoline imitation of Goulard's cerate:

Anhydrous lanoline.....	10.0
Benzoated lard.....	20.0
Solution of subacetate of lead.....	30.0

A lanoline salve for burns is the following:

Anhydrous lanoline.....	10.0
Benzoated lard.....	20.0
Lime-water.....	30.0

A refrigerant zinc ointment:

Anhydrous lanoline.....	10.0
Benzoated zinc ointment.....	20.0
Rose-water.....	30.0

Unna advised that in this form of cooling unguents only the anhydrous lanoline (lanolinum anhydricum) should be prescribed. These formulæ are designed for extemporaneous use, and are unsuitable for storing.—*Journal Am. Med. Association*.

**CERTAIN CAUSES OF FAILURE IN THE USE OF PESSARIES.**—The reason why the use of pessaries is condemned by some is because they fail to appreciate the real status of the instrument. In order to accomplish definite results it must be used under definite conditions. Perhaps the most frequent cause of disappointment to the inexperienced physician in the use of the pessary, and of discomfort or even injury to the patient, is the failure to realize that pelvic inflammation—salpingo-oöphoritis—is either a relative or an absolute contra-indication to its employment. Malposition of the uterus is a matter of secondary and minor importance in the presence of advanced tubovarian inflammation. As well may we treat a uterine lesion when a large ovarian cystoma is present. Again, malpositions of the uterus are frequently of a purely secondary or symptomatic nature. For example, we have “ante-flexion, and retroflexion with adhesions.” This term simply illustrates the persistence of an old nomenclature. The real disease is almost always a chronic peritonitis, or the remnants of a peritonitis, the uterine malposition being simply an accident in the course of the disease. Whether it is best to attempt the reposition of the organ in such cases depends entirely on the nature of the peritonitis



and the state of the tubes and ovaries. In some of these cases, in which the tubo-ovarian condition does not require operation, an Emmet's pessary of suitable size will afford relief by taking off the strain from adhesions, but, broadly speaking, pessaries are contra-indicated in the entire class. Again, retroversion or flexion and prolapse of the uterus growing out of laceration of the levator ani muscle is an illustration of malposition which is secondary or symptomatic. The lesion is the laceration. Other factors may enter into the case, as the tonicity of the tissues in general, the habits of the patient, etc., but the primary fact is the tear in the muscle, or, as it is generally stated, in the perineum. In this broad group of cases the utility of pessaries is undoubted, but the results to be gotten in the individual case depends strictly on the conditions present. The greater the muscular lesion and the more the patient must do manual labor, the less can be accomplished by pessaries. When the supporting action of the pelvic floor is markedly deficient by reason of the laceration, a suitable plastic operation is indispensable to a cure. When this has been done the pessary may prove very useful in the cure of the uterine malposition which remains. But when the laceration is slight and the loss of support is but little, if the patient does not need to do manual labor, she can be made comfortable and relatively well by maintaining the uterus in its normal position by a suitable pessary.

The field in which the pessary is most useful, and its employment most logical, is in the treatment of simple retroversion and flexion and prolapse. The *rationale* of its use is that it keeps the uterus in proper position, while the cause of the displacement is removed, and thus the secondary consequences of the displacement are cured. For example, the retroversion due to subinvolution of the uterus following labor is curable by maintaining the uterus in proper position while the subinvolution is combated by local depletion, with glycerine or the artificial leech, by the use of ergot, the regulation of the bowels, attention to the general health, and the avoidance of undue exercise—lactation being maintained when possible.

Finally, the practitioner will experience the least disappointment in the use of the pessary who will regard it as a mechanical agent capable of producing certain results only in a line of treatment, and who will consider the faithful employment of the other measures or agents indicated as being of equal importance in effecting a cure. Not only that, but he must have due regard for the contra-indications

present. The pessary has done harm enough as a "cure-all" for the manifold ailments of women, and the day should be past when it can be used as the "routine treatment."—*Medical and Surgical Reporter*.

THE NEED OF ASEPTIC RIVERS.—The rivers of New Jersey and New York are becoming a source of suspicion and alarm instead of being an inspiration to pleasant fancies and successful agriculture. The Passaic, about which poets might have sung, if poets had any chance in New Jersey, is, we are told by that stern censor of our fluvial treasures, The Sanitarian, "well known to have served the double purpose of being the common receptacle of the sewage and the source of the potable water of one hundred thousand people, more or less, for many years."

The glorious Hudson also is said to supply to the inhabitants of Albany attenuated solutions of the sewage of Troy, until Albany has become celebrated as "a fever-hatchery." As for the Croton, no one dares to speak a kind word for it, for every person in New York with a diarrhea thinks sadly of that poisoned stream. Verily the rivers of to-day may be beautiful or not, but they must be clean or they will not be tolerated. The bacteriologist with his culture-tubes must indorse a river as aseptic before its beauties can be sung or its waters drank. It is temporarily comforting, however, in this connection to know that by the latest analysis the Croton is found to be free from nitrites. Long may it thus flow.—*New York Medical Record*.

EMPLOYMENT OF EXALGINE IN INFANTS.—Dr. Moncorvo has published the following *résumé* of his observations: (1) The marked activity of exalgine as an analgesic has been well demonstrated in twenty-one different children, varying from one to twelve years of age, in whom it was administered in various painful affections. (2) In all the children the medicine was well borne. (3) None of the complications, such as ringing of the ears, nausea, and dizziness, sometimes stated to have been observed in adults as a consequence of exalgine, were noted. (4) Exalgine was employed at first in the dose of three quarters of a grain daily, gradually increasing up to five grains. (5) Since exalgine is not disagreeable to the taste, it was given to most of his patients in substances applied directly on the tongue, while in some it was suspended in diluted wine. (6) Exalgine exceeds antipyrin in activity, and the same effects may be expected from it as might be looked for from a dose of antipyrin five times as large.—*Bulletin Général de Thérapeutique*.

# The American Practitioner and News

"NEC TENUI PENNÂ."

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H. A. COTTELL, M. D., } - - - Editors.

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## "I KNOW A BANK," ETC.

It is a canon in medicine that the more intractable the disease the greater the number of drugs which appear from time to time as infallible remedies for it.

Since the day when the first grandson of Noah in the ark lost his breath in a paroxysm of coughing and got it back again with a whoop till the day when baby McKee did likewise in our White House, there is no product of water, earth, or air which has not been heralded as a remedy for the disease, and its efficacy attested through alleged cures made at the hands of professional prescribers of it.

That a new "specific" for whooping cough should at this or any time claim space in the columns of the medical journals is nothing remarkable, but the expectant therapist will doubtless suffer a temporary spasm of the *occipito frontalis* when he beholds the common features and homespun garb of the new candidate for therapeutic honors.

Here it is, and it takes a Frenchman to discover its virtues:

THYMUS VULGARIS IN THE TREATMENT OF WHOOPING COUGH.—Since Dr. Neovius published a monograph on the advantages of this drug in the treatment of epidemic whooping cough, Dr. S. B. Johnson, according to the *Lyon Medical*, has been giving it a trial, and his experience with it has led him to the conclusion that it is a specific in this dis-

ease. Dr. Johnson says that, if the medicament is administered regularly and with perseverance, the cure is invariable in from three to five days, but the use of the medicine must be persisted in for at least two weeks after the symptoms have subsided. The thymus is given mixed with a small quantity of marsh-mallow syrup. The only unpleasant effect likely to occur will be a slight looseness of the bowels. The preparation to be effective should always be made fresh.

## CANNABIS INDICA AS AN ANODYNE AND HYPNOTIC.

Elsewhere in this issue is an admirable paper by Dr. J. B. Mattison, of Brooklyn, who reasserts and duly accentuates, by facts drawn from a large experience, the old claim of this drug to analgesic and hypnotic powers.

The drug has attained considerable reputation as a remedy in certain chronic, painful affections when given in doses of one quarter of a grain of the solid extract two or three times a day for a period of three months or more; but the exhibition of cannabis indica in single large doses, or in smaller doses repeated with such frequency as to rapidly produce in the patient the toxic symptoms of the drug, is, so far as we know, a novelty in medication.

Dr. Mattison claims that cannabis indica is not in any sense of the word a poison; that a death from its use has never been known; that its lethal dose can not be stated; that in large doses (30 to 60 minims of the fluid extract) it is competent to relieve pain; that while it may for a time produce in the patient considerable nervous exaltation, no after-effect beyond a harmless depression follows its exhibition, and that it is not one of the "drugs that enslave."

The paper is a classic survey of the question and will repay a careful perusal. It can not be denied that nothing is so much needed in the therapeutics of the day as an analgesic that may be given without danger in sufficient doses, that has no disagreeable after-effects, and that may be taken over long periods of time without causing the patient to become the slave of a baneful drug.

THE attention of our readers is called to the American Practitioner and News' Clubbing List in this issue. All the leading magazines and periodicals may be found in this list.



## Notes and Queries.

**THE BIOLOGICAL TEST OF URINE.**—Professor Semmola, of Naples, has proposed an addition to our present clinical methods which has at least the merit of novelty. He advises that in various acute diseases the urine be tested not only chemically but "biologically," that is, that specimens of it be injected into dogs, guinea-pigs, or rabbits, in order to determine the degree and kind of its toxicity. This biological test can, he thinks, be used by the clinician, and will throw light upon the course of the patient's disease. Bouchard has shown that the urine possesses different degrees and modes of toxicity in different diseases, this being due to the presence of leucomaines, ptomaines, and various other products of tissue and microbic activity. M. Semmola seems to think, so far as his written contribution shows (*British Medical Journal*, September 1904), that the animal experimented on in any given case will reproduce some of the symptoms of the patient's disease. We can not better illustrate this fact than by reproducing the account of one of two cases which he describes. This was a case of fibrinous pneumonia following influenza; and Professor Semmola states that while the specific inflammatory process successively invaded new zones of pulmonary tissue, there supervened suddenly eclamptic and tetanoid symptoms which made the medical attendant suspect the onset of infective cerebro-spinal meningitis. The condition of the patient was most serious: a temperature of 40.07° C.; pulse 125, respiration 55; fluid yellowish-green expectoration, profuse sweating, etc.; in short, the classic picture of a most violent acute infection. The doubt as to the diagnosis was fully warranted, and it will readily be understood of what importance that was relatively to prognosis and treatment. Semmola did not, however, feel justified in accepting without much reserve the diagnosis of cerebro-spinal meningitis, and before giving his opinion he caused experiments to be made in the laboratory of the Clinical Institute on the biological analysis of the urine which the patient had passed in the last twelve hours. The experiments were conducted by Dr. Traversa and Dr. Falcone.

The result of that biological analysis was as follows: Urine deep yellow in color, clear, acid, specific gravity 1.020, containing no chemically appreciable pathological elements, no uroerythrin, biliary pigments, or ethyldiacetic acid. The injection of 5 c. c. of this into a guinea-pig weighing 250 grams, and of 10 c. c. into a rabbit weighing 1,050 grams, was immediately followed by general tremors, alternating with tonic convulsions and extreme dyspnea, exactly resembling the clinical symptoms and convulsions seen in the patient, and clearly showing that part of the dyspnea, the severity of which was certainly disproportionate to the extent of the pneumonic process, was of bulbo-paralytic origin. The professor no longer hesitated as to the diagnosis, but declared that the convulsions did not indicate an attack of cerebro-spinal meningitis, but simply a most acute intoxication due to the formation of new special ptomaines in that great and mysterious bio-chemical laboratory of which the human organism, when attacked by influenza, is the seat.

Iodide of sodium was thereupon given, and the patient recovered.

The story of the other patient was one of much the same kind.

M. Semmola is a professor in the University of Naples and a senator of the Kingdom of Italy, and his biological experiments are interesting. But the train of reasoning which he offers to us seems very transcendental, and one is tempted to exclaim, after a careful perusal of the senator's paper, "In the name of the Prophet, Bosh!" We do not wish to do our esteemed colleague injustice, however, and it may be considered that the above exclamation is not officially made. We will wait until he has published his experiments in full, and add, in justice to him, the following paragraph with which he concludes his article:

There are, he says, two indispensable conditions for attaining all the clinical advantages which may be looked for from biological analysis: (1) The researches should be carried out by assistants thoroughly versed in pharmacological experiments, especially those concerning the nervous and muscular system. (2) The experiments should begin with small doses of

urine (always having regard to the body-weight of the animal), because in acute infective diseases the organism sometimes gives rise to the formation of most powerful poisons, with regard to which it would be impossible to obtain a precise knowledge of the clinical symptoms of intoxication produced by them, unless one proceeded step by step. Lastly, the reader need hardly be reminded that the total quantity of the urine passed in twenty-four hours should be taken into account wherever it is possible to do so.—*New York Medical Record*.

**A FEW CORN CURES.**—H. M. Whelpley, Ph. G., M. D., says: It must not be forgotten that the conditions which caused the corn in the first place will induce its return under like circumstances. Always impress the customer's mind with this fact. The use of the surgeon's knife in removing toes is the only means of preventing the return of corns on some people's feet. But then the druggist need not worry over that, for the trade is a source of revenue if properly handled.

Probably the most popular corn cures depend on the action of salicylic acid. Among the many therapeutic properties of this comparatively new remedy is its power to disintegrate epithelial tissue. It is usually combined with cannabis indica. The form I have found useful is to mix nine parts of salicylic acid with one part of extract of cannabis indica and forty-eight parts of collodion. This is applied to the corn every night with a camel's-hair brush. The foot should be clean before it is applied, and the mixture permitted to thoroughly dry before it comes in contact with clothing.

I am aware there are several other formulas published for this same mixture, and that they usually call for less of the salicylic acid, but I believe the above amount should be used in order to get good results.

A salicylic-acid corn plaster is made by mixing six parts of resin and adding five parts of balsam of fir, and then stirring in ten parts of salicylic acid as it cools. This can be spread on any suitable medium for a plaster. When used the corn must not be rubbed with the shoe.

Lanolin forms the basis of another salicylic-acid plaster, and cocaine is added with the idea of making it painless. To form the plaster, mix six drams of salicylic acid thoroughly with ten drams of lanolin. Dissolve five grains of hydrochlorate of cocaine in a small quantity of warm alcohol, and mix the solution with one fluid ounce of creosote. Mix one half ounce of melted white wax with one half ounce of vaseline and add the creosote solution. To this add the cocaine solution and mix.

Some of the salicylic-acid corn cures are simply a salicylic-acid cerate, made by mixing one part of salicylic acid with eight parts of simple cerate.

Among the corn plasters made without the use of salicylic acid is one composed of forty parts of resin cerate, forty parts of galbanum plaster, fifteen parts of verdigris, five parts of turpentine (the oleoresin), and three parts of creosote.

There is also in the market a corn plaster which is ordinary adhesive plaster with about fifteen per cent of salicylic acid and a small percentage of benzoin.

Salicylic acid is sometimes associated with arsenic in the proportion of two drams of the salicylic acid with one dram of arsenious acid and one ounce of vaseline. This is used as a salve on linen.

Still another corn plaster is made of salicylic acid one part, Burgundy pitch one part, and yellow wax one part.

A caustic corn salve is made by mixing a hot saturated solution of caustic soda or potassa with twice its bulk of glycerite of starch.

A solution for the cure of corns has been made by dissolving thirty grains of tannic acid in one ounce of a mixture of equal parts of tincture of iodine, acetic acid, and glycerin.

This list could be continued for some time, but the above formulas will enable the energetic druggist to satisfy his customers and aid in filling his money drawers.—*Notes on New Remedies*.

**THE PURE AND THE IMPURE.**—Ricord, the syphilographer, an American by birth, seems to have led such a species of double existence as to have presented differing aspects to different



persons. Dr. Oliver Wendell Holmes says that he was "the Voltaire of pelvic literature—a skeptic as to the morality of the race in general, who would have submitted Diana to treatment with his specifics, and ordered a dose of blue pills for the vestal virgins." Mr. Gay-erre, of New Orleans, wrote in 1887 some reminiscences in which he said: "Ricord at the time was a bachelor, and, I believe, has never married. What was my astonishment when I entered a very large bedroom, of which the walls, from the high ceiling to the floor, were covered with none but magnificent oil paintings representing sacred subjects. At the head of the bed was a sculptured oak priedieu, on which there was a superbly illustrated copy of the Gospels that was lying open. There was a red velvet cushion to kneel on at the foot of the priedieu, surmounted by a beautifully carved ivory Christ on a gilded cross. After a little while I was led to the presence of the medical philosopher, who habitually seemed to delight in being a cynical unbeliever. Guessing at what had passed in my mind, he said, with a laugh not unmixed, I thought, with some embarrassment of manner, 'You are surprised, are you not?' 'Certainly,' I replied; 'who would not be? Faith! my first impression was that I had been introduced by mistake into the bed-chamber of the Archbishop of Paris.' 'Well! well! my friend,' he said, in a half jocose and half serious tone, 'I hear and see so many unclean things during the day that on retiring at night I like, before going to sleep, to refresh my eyes by looking around on holy objects.'"—*Medical Standard*.

FRENCH CRITICISM OF THE LONDON INTERNATIONAL CONGRESS OF HYGIENE.—A special double number of the *Revue d'Hygiène* has recently been issued, which is devoted exclusively to an exhaustive account of the International Congress of Hygiene and Demography held in London last August. The description of the Congress fills 250 pages of small type, and is one of the most complete accounts of the proceedings as yet published. The reports of the debates of the different sections is preceded by a criticism of the Congress as a whole. As the *Revue d'Hygiène* is the official organ of the

Société de Médecine Publique et d'Hygiène Professionnelle, and as the association has done more to bring about these international congresses than any other body of sanitary reformers, any criticism from such a quarter must be at once welcome and instructive. It is recognized by our French critics that the London Congress outstripped all previous congresses in the number of its members and the originality of some of the debates. Further, the Congress is congratulated on having brought to the notice of sanitary reformers "elements of information of the highest interest." Then follows a passage of severe but courteous criticism, which confirms what both before and during the Congress we so often energetically insisted upon.

"Nearly three thousand persons were united together at this Congress, but the great majority were English, and never before has any Congress been less international. The fact is that no attempt had been made to enable foreigners who did not speak English to take part in the discussions, or even to read the printed communications. Every one missed the excellent and amiable intervention of the young and polyglot secretaries who in Vienna rendered the debates of the Congress of 1887 so attractive. In England such delicate attention is never thought of. This was only too evident both in the sittings of the sections and in the general welcome offered to their guests by the hygienists of Great Britain. Apart from the private receptions, which were singularly numerous, and at which the greatest courtesy and unequaled sumptuousness were displayed, the reception committee on no occasion knew how to facilitate the foreigners in the accomplishment of their mission, or how to render their sojourn agreeable. If this manner of proceedings had for its purpose to remind all educated men that it is necessary to know several languages, or in any case to know at least the English language, never before has the demonstration of this necessity been so complete."

At previous Congresses it was the rule that all discussions should be introduced by reports printed in the various languages and circulated before the Congress met, and it is a misfortune that this rule, so successfully applied at the

previous Congresses, was not observed at the London Congress. Such reports have also the advantage of limiting the work of the Congress. Concerning the London Congress, one of the greatest complaints is that there were so many subjects that the greater portion of them could not be seriously studied. The *Revue d'Hygiène* remarks: "As no reports had been distributed before the Congress met, and as it was scarcely possible for any one to participate in the discussions except the English, and as most of the English belong to the sanitary services, they, as functionaries, did not seem desirous of showing any particular independence of thought or power of initiative. Consequently the discussions languished and could not under such circumstances prove very fruitful." A notable exception, however, is made in favor of the Bacteriological Section, which receive the warmest praise at the hands of our foreign critics. With regard to the Demographical Division, the *Revue d'Hygiène* regrets "that the organizing committee of the Congress thought fit to comprise within the labors of this division the question relating to industrial hygiene, thus compelling it to loose the character it had so judiciously preserved up to this date. For we have in this a Congress of Demography annexed to the Congress of Hygiene, and giving to the latter the benefit of the patient and useful investigations of the demographers. It was most welcome to see them add up, define, and control the results obtained by the hygienists; it was the greatest service that could possibly be rendered to the latter."

These criticisms, which we accept in good part, and for which we are obliged, prove the utility of international meetings. If there had been no fault to find, then it could have been said that there was nothing to learn. It is surprising how perfect we are apt to consider ourselves till some one points out our defects. Nor is it in any way strange that the organizing committee should have committed blunders when we take into account their want of experience. On the other hand, it must also be said that the foreign delegates are themselves a little to blame for the defects with which they find fault. What was the position? An overcrowded *agenda* in every section, ex-

cepting the Military and Naval Section. The chairmen therefore naturally feared that there would not be time to read all the papers, and that consequently the authors would be very dissatisfied. They had therefore to hurry forward the business, and translation would have occasioned the greatest delay. A chairman is in the hands of his meeting. If the foreign delegates had risen, had protested, had energetically demanded translations, the chairman would then have had the necessary pretext for cutting out papers from the *agenda*. He would have been armed against the complaints of the authors of papers, etc., by showing that he was forced to allow translations. As it was, English delegates several times said translations were not necessary, and the French delegates failed to protest and to declare that they were necessary. It would have been better if, instead of complaining outside the Congress, they had complained at the Congress itself. Such complaints would certainly have been well received, and every effort made to give satisfaction; but the English organizers and the English chairman did not realize the true situation, and the French delegates did not seek to enlighten them. Of course it was from motives of politeness that the French refrained from protesting. They thought that out of common courtesy and common fairness the English organizers would provide proper translations, because abroad it is the organizers who do provide for nearly every contingency. In England, however, where we are accustomed to self government, we are more in the habit of clamoring, and clamoring somewhat rudely, for what we want. In the rough-and-tumble life of public meetings, congresses, and parliaments, organizers or administrators rarely contrive to do more than satisfy those who bring the strongest pressure to bear. The reproof with which our French critics favor us to-day would have been equally welcome and of far greater practical use if addressed to the Congress itself while it was still sitting. We might then, even at the eleventh hour, have made some amends. Indeed, it will be remembered that at the final general meeting there were some translations; but this innovation was due to protests made by a few English members of the Congress, who realized



the blunder that had been committed. The fact that this request, made at the last moment, was so readily granted proves that the French delegates could have obtained what they desired from the very first if they had plainly and frankly asked for what they wanted. Nevertheless, we can not but regret that at an international Congress neither the time nor the means for adequate translations were afforded. *London Lancet.*

THE POISON OF THE TOAD. — Lovers of Shakespeare will be glad to see the credit of their favorite poet rehabilitated even in a small matter. The lines—

"Toad, that under the cold stone  
Days and nights hath thirty-one  
Sweated venom,"

have of late years been looked upon as simply the expression of a popular prejudice current in Shakespeare's time, but now completely exploded. A correspondent of *The Field* remarks that "Fleming, in his well-known 'History of British Animals,' maintains that the toad is destitute of any venomous quality, and is only despised, hated, and persecuted by the ignorant; and he remarks that it is surprising that prejudices so unjustifiable still continue to prevail." In two letters which appeared in *The Lancet* of August 29th a large amount of evidence is brought forward to show that Shakespeare's words, instead of being merely an expression of a mistaken popular idea, are really a most truthful description of fact. The toad does secrete a venom of a tolerably powerful character, and instead of this secretion taking place, as in the case of snakes, entirely through the salivary glands, it is actually secreted by the skin, so that the word "sweated" is most accurately descriptive. In his interesting letter Dr. Leonard Guthrie mentions that the secretion also occurs in the toad through the parotid glands, and that the venom is a thick milky fluid, like the juice of dandelion stalks in taste and appearance. When inoculated subcutaneously it kills small birds in six minutes, and dogs and guinea-pigs in half an hour to an hour and a half; the symptoms in birds being loss of co-ordination, followed by death, in guinea-pigs convulsions, and in the dog depres-

sion, vomiting, and intoxication. Dr. Guthrie describes two very interesting observations of his own on the effect of toad's venom. He kept a small toad in a cage with some common lizards, and one day a lizard, having bitten the toad, immediately afterward rushed wildly round the cage, burrowing its head in the sand, became convulsed, and died in less than two minutes. His dog having seized a toad, was attacked by instantaneous and profuse salivation, violent vomiting and collapse. He also noticed that the venom has a most powerful local action on the skin, so that after carrying a toad in his hand he got numbness and tingling in it, with a slight swelling and dryness of the skin lasting for several hours. In another letter Dr. Lauder Brunton mentions that the active principle of the toad venom is probably of an alkaloidal nature. It has been called phrynin or bufidin. It appears to be a cardiac poison, acting in somewhat the same way as digitalis; but as Dr. Lauder Brunton points out, its effects appear to resemble still more those of erythrophleum, for the uncertain gait, convulsions, and paralysis which it produces are precisely the symptoms produced by the erythrophleum when used as an ordeal poison. Dr. Guthrie's observation of the local action of toad's venom in causing numbness and tingling is interesting, as showing that in its local anesthetic action phrynin resembles erythrophleum and digitalis, and confirms the truth of the generalization made by Dr. Lauder Brunton in the *Lancet* of March 3, 1888, that all the drugs belonging to the group of so-called cardiac poisons may have a local anesthetic action.—*London Lancet.*

SHAKESPEARE'S FAMILY AS PATIENTS.—"Master John Hall, Physician," who was in practice at Stratford-on-Avon, married Shakespeare's daughter, Susanna, in 1607. In Latin he wrote details of the illnesses of many of his private patients, whose names he gives in full in the clinical records which he published. Under the title of *Select Observations on English Bodies of Eminent Persons in desperate Diseases*, his book was translated by James Cook, of Warwick, author of the *Marrow of Chirurgery*. The notes of many of Dr. Hall's

cases are interesting, not only on account of the family association of the patients, but because they are additional instances of the diagnosis and treatment then current. Polypharmacy was in fashion then, almost more than at the present time, although we have not to go very far now to find those who, like Dr. Hall and his contemporaries, seem to think that there exists a drug to be appropriated to each individual symptom. Although Dr. Hall's diagnosis is often open to criticism, his treatment was based on sound principles. Not seldom his success was obtained by the induction of copious vomiting, and nearly always by very free purgation. In these days of elegant pharmacy we are in danger of forgetting the value of this mode of treatment, and we might do well to follow the example of our ancestors somewhat more often, and on their lines secure quickly very good results by methods which produce much less discomfort to the patient than in those times of crude therapeutics.

In an attack from which Dr. Hall's wife suffered, a less quantity of nauseous medicine was required than was usual. Here is her husband's account of the illness :

Mrs. Hall, of Stratford, my Wife, being miserably tormented with the Cholick, was cured as followeth: R *Diaphan.* *Diacatholice*, ana  $\mathfrak{z}$ i. *Pol. Holland*  $\mathfrak{z}$ ii. *Ol. Ruta*  $\mathfrak{z}$ i. *Lact. q. s. f. Clust.* This injected gave her two Stools, yet the Pain continued, being but little mitigated; therefore I appointed to inject a Pint of Sack made hot. This presently brought forth a great deal of Wind, and freed her from all Pain. To her Stomach was applied a Plaister *de Labd.* *Crat cum Caran.* & *Spec. Aromat. rosat.* & *Ol. Macis.* With one of these Clysters I delivered the Earle of Northampton from a grievous Cholick.

The virtues of sack have been celebrated by Jack Falstaff in a well-known passage, although he would no doubt have considered that to use it by this route was a deliberate waste of his favorite liquor. But it seems to have done more good when directed by the hands of Dr. Hall than it ever did in the mouth of Jack.

The health of Dr. Hall's daughter when she was sixteen years of age was a source of anxiety to her parents. Her father thus records the difficulties :

Elizabeth Hall, my only Daughter, was vexed with *Tortura Oris*, or the Convulsion of the Mouth, and was happily cured as followeth: First, I exhibited these Pills: R *Pil. Coch.* & *Aurear.* ana  $\mathfrak{z}$ i. f. *Pil.* 10. She took five the first day, which gave her seven

stools: the next day with the other five she had five stools. I fomented the part with *Theriac.* *Androm.* and *Aq. Vita.* To the Neck was used this: R *Unquent.* *Ma-tick.* *magn.*  $\mathfrak{z}$ i. *Ol. Laurin.* *Petrolai.* *Castor.* & *Terebenth.* ana  $\mathfrak{z}$ ss. *de luteribus*  $\mathfrak{z}$ ss. *M. s.* By this she had great advantage, her Courses being obstructed. Thus I purged her: R *pil. fetid.*  $\mathfrak{z}$ i. *Castor.*  $\mathfrak{z}$ i. *de Succin.* *Rhen.* *agnat.* ana  $\mathfrak{z}$ iss. f. *Mess.* She took of this five Pills in the morning, of the bigness of Pease: they gave eight stools. The next day she took *Aq. Ophthalmic.* see *Observ.* 3. as R *Tutur.* &c., her Courses flowed. For an *Ophthalmia*, of which she laboured, I used our Ophthalmick Water, dropping two or three drops into her Eye. Her Courses started again. I gave the following Sudorific Decoct. R *Lign. Vitr.*  $\mathfrak{z}$ ii. *Sassafras*  $\mathfrak{z}$ ss. *Sarsap.*  $\mathfrak{z}$ i. *China*  $\mathfrak{z}$ vi. *macerat per 24 hor.* in *Aq. fontan.* lb. viii. After boyl them i lb. iv. After the use of these, the former form of her Mouth and Face was restored (there was not omitted *Ol. Sa. sap.* which was above all to anoint the Neck. Jan. 5, 1624.

In the beginning of April she went to London, and returning homewards, the 22d of the said Month, she took cold, and fell into the said Distemper on the contrary side of the Face; before it was on the left side, now on the right; and although she was grievously afflicted with it, yet by the blessing of God she was cured in sixteen days, as followeth: R *Pil. de Succin.*  $\mathfrak{z}$ ss. *Aurear.*  $\mathfrak{z}$ i. f. *Pil.* v. She took them when she went to bed. The same night her Neck was anointed with Oil of *Sassafr.* In the morning I gave  $\mathfrak{z}$ ss. of *Pil. Russi.* and again used the said Oil with *Aqua Vita*, and dropped into her Eye the Ophthalmick Water. The aforesaid Oil being wanting, I used the following: R *Pul. Castor.* *Myrrh.* *Nuc. Mosch.* *Croci.* a  $\mathfrak{z}$ i. *Ol. Ruta.* *Laurin.* *Petrol.* *Tereb.* a  $\mathfrak{z}$ ii. *Unq. mentat.*  $\mathfrak{z}$ ss. *Ol. Castin.* *de Popo.* a  $\mathfrak{z}$ vi. *Misc.* But first the Neck was fomented with *Aq. Vita*, in which was infused *Nutmegs.* *Cinnamon.* *Cassia.* *Pepper.* She eat Nutmegs often. To the Nostrils, and top of the Head was used the Oil of Amber. She chewed on the sound side, Pellitory of Spain, and was often purged with the following Pills: R *Pil. fetid.*  $\mathfrak{z}$ i. *Castor.* *pul.*  $\mathfrak{z}$ ss. *Pil. Russi.* & *de Succin.* a  $\mathfrak{z}$ i. f. *Pil.* No. v. And thus she was restored.

In the same year, May 24, she was afflicted with an Erratick Fever; sometimes she was hot, and by and by sweating, again cold, all in the space of half an hour, and thus she was vexed off in a day. Thus I purged her: R the *Roots of Parsly.* *Fennel.* each *Mss.* *Elder Bark* *Mii.* *Roots of the vulgar Oris.* of *Madder.* each *Mi.* *Roots of Sparagus.* *Mii.* Boyl them in sufficient quantity of Water to six pints. To the straining, add *Rubarb.* *Aquack.* each  $\mathfrak{z}$ ss. *Sena*  $\mathfrak{z}$ vi. *Mezmacon*  $\mathfrak{z}$ ii. *Calamus Aromaticus*  $\mathfrak{z}$ i. *Aniseds*  $\mathfrak{z}$ i. *Cinnamon*  $\mathfrak{z}$ ss. Infuse them in a Vessel well stop'd according to art: strain it again, and to the straining add Sugar sufficient to make a Syrup, of this take  $\mathfrak{z}$ iv. *Rubarb* infused in  $\mathfrak{z}$ v. of *Cherry water*  $\mathfrak{z}$ ii. Mix them, and give seven spoonfulls every day fasting. It gave seven or eight stools without pain. R *Sarsap.*  $\mathfrak{z}$ i. *Sassafr.*  $\mathfrak{z}$ ii. *Guaia.*  $\mathfrak{z}$ i. *Liquoris*  $\mathfrak{z}$ ss. *Herb of Succory.* *Sage.* *Rosemary.* each *Mss.* Boyl them in ten pints of Water till half be wasted. Of which she took a draught hot in the morning. The following was used to anoint the Spine: R *Gum Galban.* *Bdel.* *dissol.* in *Aq. Vit.* a  $\mathfrak{z}$ ss. *Benzoin.*  $\mathfrak{z}$ i. *Syrac.* *liquid.*  $\mathfrak{z}$ i. *Fol. Rut.* *Chamaepith.* *Flos. Stachad.* *Lavendula.* a  $\mathfrak{z}$ ii. *Rai costi.*  $\mathfrak{z}$ ss. *Castorei*  $\mathfrak{z}$ i. *infund.* *misc.* & *pulverisat.* in *Aq. Vita.* It is to be infused in some hot place for some days. Before it was used, the Spine was rubb'd. An hour after it was used, all the Symptoms remitted



daily till she was well. Thus was she delivered from Death, and deadly Diseases, and was well for many years. To God be praise.

The *Aq. Ophthalm.*, concerning which Dr. Hall's reader was referred to Observation III., was made thus:—“R *Sarcocol* wash'd.  $\mathfrak{z}$ ijj. *Prepared Tully*  $\mathfrak{z}$ ij. *Aloes*  $\mathfrak{z}$ j. *White Sugar-candy*  $\mathfrak{z}$ iss. *Saffron* gr. iv. *Rosewater*  $\mathfrak{z}$ iv. Mix them, letting them stand a day, shaking them oft.

Dr. Hall did not shrink from administering drugs to himself as freely as he gave them to his patients. When fifty six years of age (he was only twelve years younger than his father-in-law) he had “an immoderate flux of the hemorrhoids,” the sequelæ of which nearly killed him. His remedies had, however, done him much good before the arrival of the two physicians for whom his wife sent.

The identification of much of the *materia medica* in Dr. Hall's prescriptions is difficult, and any information about the less known things would be welcome.

The abbreviation M. was used to signify a handful.

Among Dr. Hall's other patients was Mrs. Nash, probably the mother of his daughter's first husband. She had “of a long time laboured of a Consumption, and now afflicted with Wind of the Stomach, as also Heat thereof, with sweating from the Pit of the Stomach to the Crown of the Head, having great pain of the Head, especially after Meat.” He used remedies which “freed her from Wind, and she was able to eat, and said she was very well for a long time after.”

It is also likely that the husband of Shakespeare's other daughter, Judith, came under Dr. Hall's care, for he attended “Mr. *Queeny*, labouring of a grievous Cough, with vomiting abundance of Phlegm and Meat, having a gentle Fever, being very weak, and had red Urine without sediment.” His malady was not amenable to the evacuant treatment which was generally so successful in Dr. Hall's hands, and although the illness somewhat abated, “being not wholly freed from it, he fell into it again the next year, and all Remedies proving successful, he died. He was a Man of a good Wit, expert in Tongues, and very learned.”

It is of further interest to note that another of Dr. Hall's patients was the author of the *Poly-Olbion*, whose monument in Westminster

Abbey shows by its inscription how highly he was esteemed by his contemporaries, but whose fame was already dim in the days of Goldsmith, who, upon seeing his grave in the Abbey, exclaimed, “Drayton! I never heard of him before.” Upon one occasion Dr. Hall quickly brought him round from an illness which is thus described: “Mr. *Drayton*, an excellent Poet, labouring of a Tertian, was cured by the following: R *the Emetick Infusion*  $\mathfrak{z}$ i. *Syrup of Violets* a spoonful: mix them. This given, wrought very well both upwards and downwards.”—*Bristol Medico-Chirurgical Journal*, September, 1891.

TAPEWORM IN A NEW RÔLE. — Professor Paramuchi has reported a case of puerperal fever in which a very unexpected cause was brought to light—that is to say, the putrid remains of a tapeworm in the uterus. No untoward symptoms seem to have occurred until the tenth day after delivery, when the patient became feverish and prostrate and lost her appetite. The lochial secretion was very foul. Large doses of quinine were ordered, but no effect was produced on the temperature, which the next day was 104.2° F. The uterus was consequently washed out, two catheters being used for the purpose, as a regular uterine instrument was not at hand. The outlet catheter, after discharging some very fetid fluid, was choked up by what was found to be a putrid tapeworm. This was of course removed and sublimate irrigations given, and the symptoms soon disappeared. Regarding the question of how the tapeworm came to be in the uterus, inquiries elicited the fact that a few days before her confinement the patient had been suffering from dysenteric symptoms, and, in view of her condition, had not taken any medicine. It is probable that the worm managed to migrate after delivery from the rectum to the vagina, and that there it died and became putrid.—*Lancet*.

A MATERNITY HOSPITAL is to be established in Sitka, Alaska. The necessity of such an institution is said to be peculiarly pressing in Alaska, owing to the rude customs relating to lying-in women.

THE ANTIKAMNIA POISONING CASE reported with editorial comments in our issue of September 12th calls forth the following judicious remarks from the distinguished editor of the New York Medical Journal:

"The composition of antikamnia is not definitely known, but the editorial note in the Practitioner and News. gives an apparent acceptance of an analysis of the drug, published in the May issue of the Druggists' Circular, which makes it consist of nearly eight parts of acetanilide and rather more than two parts of bicarbonate of sodium. Assuming that this analysis is approximately correct, the amount of acetanilide contained in the supposed lethal dose was not far from eighteen grains. This is not quite a double dose, ten grains being commonly regarded as the full dose for an adult. It is difficult to connect the almost instantaneous and rapidly progressive poisoning above recorded with a dose no larger than that stated. The questions of idiosyncrasy, of possible undiscovered organic disease, of unknown quantities of the drug previously taken, with a sudden cumulative action, and of the formation of some substitution product such as not infrequently forms in this and other aniline derivatives, suggest themselves and make it desirable that a full investigation should have been made. As the matter now rests, a comment made by the editor is most pertinent, namely, that antikamnia should be listed among the poisonous drugs, and that it should not be promiscuously and non-professionally prescribed. The editor further, and very correctly, we think, inveighs against the use of powerful agents of undeclared composition as apt to lead up to just such calamitous results as that related."

MEDICAL PRACTICE IN CONNECTICUT.—The Monthly Bulletin of the Connecticut Board of Health contains the following reply, sent to a doctor inquiring of a State official if he would be allowed to practice in Connecticut by registering his name and the college from which he graduated: "Sir—Anybody can practice medicine in Connecticut. You do not need to register; you do not need a medical diploma; you do not need to know the difference between

opium and peppermint—you do not, indeed, need to know any thing. You can simply come and live here, and begin to practice. The laws of Connecticut will sustain you in collecting your fees for professional services, if you render any which you choose to call such. But if you undertake to carry me or my trunk to the depot for pay, you must get a license. If you peddle matches or peanuts, you must get a license. If you collect the swill from your neighbors to feed your pigs, you must get a license. If you want to empty your cesspool, you must get a license. But you can practice medicine in Connecticut without a license."—*Boston Medical and Surgical Journal*.

POISONING BY SULPHONAL.—A writer in the Medical Press and Circular gives a caution regarding the very indiscriminate use to which sulphonal is frequently put even by the laity. This drug was introduced about three years ago as a perfectly safe soporific, and corroborative testimony of this hopeful candidate has been abundant. Latterly there have been a few contrary reports about the safety and efficacy of the remedy, and the size of the maximum or poisonous dose could not be unanimously agreed upon. We have not a few cases on record where about three tablespoonfuls have been taken to produce sleep. In one of these cases the sleeper slept the greater part of five days and a half without permanent injury to his nervous system. Another person took a dose about one third smaller, but never re-awakened. A more unusual and extreme case has recently been reported by Dr. Ernest Neisser. A chemist's assistant, aged fifteen years, took with suicidal intent the contents of two boxes containing fifty grams each, equivalent in all to three ounces and over, of the fine pulverized sulphonal. The greater part of the drug was taken mixed with water, but some part of it was swallowed dry, and all of it was ingested within forty-five minutes. Six hours later he was found lying in a comatose sleep, and was sent to a hospital, where he lay five days and nights in an unconscious condition. On the sixth day the awakening process took place gradually, and on the ninth day he was discharged cured. He was apparently



perfectly recovered from all the after-effects of the enormous doses he had taken. In the great disparity of these recorded cases we read the lesson either of a want of uniformity in the manufacture of the drug, or of an undiscovered "personal equation" in those cases where the comparatively small dosage resulted fatally. At all events a certain amount of caution should be observed when ordering the drug for patients who have not heretofore been brought under its influence.—*Journal American Medical Association.*

#### THE DECAY OF MEMORY IN OLD AGE.—

It has recently been observed, though not for the first time, that we have in memory an intellectual model of the life changes wrought by age in the individual man. We do not, indeed, find any unvarying ratio in the decadence of mental energy characteristic of old age. Many aged persons retain almost to the last a keen interest in the affairs of life, and an intelligence capable of shrewd and exact reasoning. They enjoy much of the pleasure of memory both as regards recent events and those long past, with, however, on the whole a distinct preference for the latter. The explanation of this fact has been sought in an assumed division of nerve-labor, according to which the earlier impressions of youth and childhood are relegated to special centers other than those in daily exercise. These may be said to lie fallow throughout the greater part of adult life, and to resume their long dormant activity when a species of denudation, a wearing out of the life-wrought brain cells, lays bare the common soil of first and second childhood. The theory is an ingenious one, and hypothetically acceptable where all is uncertain; but it is to our mind somewhat too mechanical. Notwithstanding all that has been said and shown respecting the localization of motor and sensory functions, we must remember that no such exact arrangement has been proved to exist among the faculties comprised in intelligence. In this connection, therefore, such localization is still open to question. As regards the faculty of memory, there is something in its mere evanescence which tempts us to venture another hypothesis. May it not be that the parts impressed, whether especially

localized or not, are like some elastic surface deeply stamped for the moment only, and retain but a shadow of the impress in their molecular structure, depending for the permanence of this upon its frequent repetition? If so, we can well understand how the more plastic and susceptible nerve cells of the child, subject as they are to few really deep impressions, retain something like a life stain of these, which, at a later quiet period out of touch with busy life, shine through the vanishing forms of later ideas to the "mind's eye." Be this or another their true explanation, these earlier memories remain to testify with other proofs of continuing mental vigor the retentive power of nervous matter even in old age. The subject is discussed in his usual lucid manner by Dr. Richardson in this month's *Asclepiad*.—*London Lancet.*

TREATMENT OF GALL-STONES. — According to Naunyn, *Centralblatt für klin. Medicin.*, about every tenth adult suffers from gall-stones. The disease is extremely chronic and painful. Latterly surgical interference has been resorted to, but there still remains much for the physician to do. It is necessary first to understand the mode of origin. Gall-stones are formed if the bile is laden with the ingredients that form them, and which are very insoluble, namely, cholesterin and bilirubin-chalk. The cause of the increase of this in the bile is disputed. One view states that the excretion of cholesterin and of chalk is too great—cholesterin because of anomalous metabolism, chalk because of too much chalk being in the food. The other view is that the bile has lost its power of dissolving these bodies. Cholesterin forms two per cent of the solid ingredients of the bile, and this proportion is fairly constant, independent of disease or food, and also of the amount present in the blood. There is an increase, however, where there is catarrh of the bile passages. Chalk also is formed from the diseased mucous membrane, the amount otherwise being independent of the quantity taken with the food. Naunyn holds that it is untenable to look for the formation of gall-stones in decomposition of the bile. Physiological considerations have afforded no help in accounting for the formation of gall-stones. The frequency

of the occurrence can only be safely based upon *post-mortem* examination. The percentage found after death varies from five to twelve per cent with different competent observers. The differences of these observations are probably due to the fact that the gall-stones are easily overlooked. From all statistics three very important deductions can be made: (1) Gall-stones are four and a half times more frequent in women than in men. (4) Before thirty they are infrequent (two to three per cent Schroeder), after that age they become much more frequent—ten per cent. In old age their frequency becomes strikingly increased—twenty-five per cent over sixty years of age. (3) Women that have borne children are most frequently affected of all. Thus Schroeder found that among women with gall-stones ninety per cent had borne children. It must therefore be concluded that the most distinct cause is the stagnation of the bile in its passages. In women this is favored by clothing and pregnancy, both of which retard those movements of the diaphragm that assist in the expulsion of the bile. The frequency of gall-stones in old age is due to retardation of the bile flow, through atrophy of the smooth muscles in the bile passages (Charcot). The stagnation produces disease of the mucous membranes of the passages, and the cholesterin and bilirubin chalk arise in consequence of destruction of the epithelium. At first an amorphous deposit is formed, which by absorption of the fluid becomes granular. These granules increase by deposition of bilirubin-chalk and the infiltration of cholesterin. The latter, supplanting the bilirubin-chalk, forms ultimately the beautiful, pure white cholesterin-solitaire. A further secondary formation occurs in the deposition of carbonate of lime, of importance because the stone is then no longer soluble. The cause of the stone forming desquamative angio-cholitis is the retarded discharge of the bile, through which an infection of the bile passage is favored. It is also possible that the bacillus growth in the bile favors the formation of gall-stones. Probably it is in this manner that the intra-hepatic stones are formed. In regard to symptoms there should be distinguished a regular form and an irregular form of

the disease. The former occurs when there is simply lodgment of the calculus in the gall-bladder or passage of the stone along the duct. The irregular form is seen when there is infectious angio-cholitis with abscesses in the liver, fistula, and all other consequences. As a final issue of the regular gall-stone disease may be the formation of carcinoma in the biliary passages and the liver. In regard to the symptoms, it should be remembered that the stone is most often lodged in the cystic duct, giving rise to colic, and less often in the common bile duct; therefore the occurrence of jaundice is not so common. Further, it should be borne in mind the ease with which infection can arise, giving rise to biliary fever. The connection between gall-stone and food is not proven, so that it is not possible to recommend a prophylactic diet. For the removal of gall-stones cholagogues are not to be depended on. After an abundant varied diet the bile flows more freely than after cholagogues. In practice errors of diet should be avoided, and alkaline saline waters (particularly the hot Karlsbad) act beneficially. These act by increasing the peristaltic activity of the digestive tract and increasing the flow of blood to the abdominal organs. In the peristalsis the bile passages participate, and the movement of the bowels act as a form of massage, while the diseased mucous membrane benefits by the increased flow of blood. The injection into the rectum of large quantities of hot water serves the same purpose.

Fürbinger based his remarks on 64 cases he had carefully observed, so that there was no doubt of the diagnoses. Of these 13 were men and 51 women. The chief site of pain did not lie in most of the cases in the right hypochondrium, but in the epigastrium, radiating from thence upward and downward. With jaundice there was enlargement of the liver, and the dilated gall-bladder was not infrequently to be felt. In 24 out of 41 there was slight fever; considerable slowing of the pulse can accompany the fever. In 30 out of 41 there was jaundice. Duration of attack showed a variation from transient to several day's duration, with intervals of weeks and years. The *corpus delicti* should always be



looked for, and its absence does not vitiate the diagnosis. Very seldom was the stone perceived through a peculiar grating noise in the gall-bladder. When there is fever, it is irregular and accompanied by other symptoms pointing to the liver. When protracted for weeks and months the victim declines with severe cachexia (liver phthisis). The local pain may not be excessive till there is inflammation and ulceration of the peritoneum, on account of the latency of the catarrh of the gall-bladder and biliary passages. In suppurative inflammation of the liver, pain in the right hypochondrium and jaundice are frequently wanting. When perforation takes place into the peritoneal cavity a fatal peritonitis is set up by the decomposed bile. When a fistula is formed it is often very distant, and daily discharges quantities of bile and rarely gall-stones. Most frequently the perforation takes place into the small intestine. The gall-stone can here cause grave mischief (ileus, perityphlitis, etc.). Finally there may be set up interstitial hepatitis (too frequently doubted) as well as adhesions between the liver and the neighboring organs. The latter may be a source of great discomfort. In regard to the diagnosis, gall-stone disease was often mistaken for gastric ulcer, cramp of the bowel and stomach, renal colic, and hepatic neuralgia. Further, the pain may lie in any region of the abdomen save that of the liver. Slight jaundice is not easy to recognize, but is valuable when it does occur. Surgical interference should not be delayed too long in order to aid the diagnosis. The puncture of the gall-bladder is dangerous. Care should be taken not to confuse the intermittent fever with malaria or typhus. In regard to prognosis of the attack it is favorable, but of the after condition rather grave, although the surgical methods have improved it. It is consoling to know that serious cases can obtain ultimate recovery by internal treatment. Of Fürbinger's cases thirty-four per cent were cured, forty-two per cent were improved, ten per cent were unsuccessful, and fourteen per cent died. Of the six treated by surgical means four recovered. In regard to treatment, it is necessary to prevent the formation, to remove the concretions, and to combat the tendency to

the formation of gall-stones. Morphia and opium are the best agents for subduing the attacks of colic. It is folly to try to dissolve the stone. The endeavor must be made to increase the mechanical driving force of the bile and swell out the stone. Health resorts and springs have much success and not a few failures. The salicylate of soda and the oil-cure has been useful in Fürbinger's hands. With the latter the liver becomes permeated with fat, and a saponified fat is formed which can be found in the stools as pseudo-gall stone. While this treatment can often be borne, it sometimes gives rise to distressing dyspepsia. In regard to diet, more depends on temperance than on the choice or denial of certain foods. There is no value in theoretic or empiric reasoning, and there should only be excluded excessive fatty and sugary foods, alcohol of bad quality, and notoriously indigestible matters. Of high value are warm baths, rational clothing, dwelling in fresh air, and avoidance of over exertion. Fürbinger can not praise the attempts to express the stone by kneading the gall-bladder and pressing the liver. Notwithstanding the brilliant results of surgical practice, he thinks that the operative procedure should not be lightly undertaken. Still when all other means fail, and the patient is threatened with cholemia and pyemia, then he would advise surgical interference. The operative removal of cicatricial bands is often valuable.

Reidel gave his experience of thirty two cases. Sixteen of these had not jaundice, on whom he operated. All recovered, and no fistula was left behind. Sixteen had jaundice, and the result was not so satisfactory. Ten completely recovered, two were under treatment, and four died. Of these four, one died after complete extirpation of the gall-bladder, two were in an exhausted condition when they came under treatment, and one died in consequence of escape of bile into the peritoneal cavity.—*Medical and Surgical Reporter*.

LEPROSY IN THE MIDDLE AGES.—Like the Jews, lepers were obliged by medieval law to wear a special costume. It consisted of a tunic or mantle, called by contemporary French

writers *housse* or *esclavin*; it was generally gray, sometimes black. A hat, sometimes scarlet, or a hood, was also part of their vestment. Among the articles they were allowed to carry were the wallet, the pannier, and the *crécelle* or rattle, with which they made a noise to warn people of their approach. A provincial council, held at Marciac, December 6, 1330, by Wm. de Flavacour, Archbishop of Auch, prescribed to the lepers, as to the Jews, the wearing of a visible sign by which they might be distinguished. (*Et tam Judei quam leprosi signa potentia deferant ut ab alii discernantur.*) What were these signs? At this time of day it is difficult to ascertain them. M. Ulysse Robert, however, has found in an ordinance issued at Castres in 1345 that no inmate of the leper hospital there was allowed to enter the town unless he had a *drap blanc* round his neck and the rattle aforementioned. And not only the lepers, but those in charge of them were bound to wear some such distinctive mark. Louis Guillard, Bishop of Chartres, ordained March 31, 1529, that the brothers of the Grand Beaulieu, an establishment for lepers, should wear on their dress a capital L of red cloth, half a foot long, over their left breast; and this because they were in frequent contact with lepers, and might communicate the disease.—*London Lancet*.

AN UNUSUAL FORM OF CHANCER.—On January 13, 1891, a professional man from India, aged forty-nine, and intemperate, consulted me for a chancre which had appeared a week before. About twenty-seven years ago he had chancroid and suppurating buboes, which healed slowly. The sore was on the *dorsum*, one third of an inch behind the corona, and there were hard enlarged glands in each groin. Small doses of blue pill, small inunctions in the groins, and dry lint were ordered. Good progress was made for a fortnight, but then the sore began to extend slowly, and there arose around it, except toward the corona, a thick ridge. This near the frenum was edematous, but above there was a semi-solid deposit in the areolar tissue of the preputial folds. Many local applications were tried without effect, and iodoform seemed only of little service. On March 9th iodide of potassium was prescribed, together with the mer-

curial treatment. After ten days the skin over the hardest part of the ridge gave way, and matter similar to that in gummata came out. Improvement followed, but so slowly that it was April 13th before cicatrization was complete. It ulcerated again superficially on the 20th, but finally healed in three weeks. The enlargement of the glands had become absorbed, and no secondaries appeared. The peculiar deposit and the extreme slowness of healing, due probably to the age, habits, and former residence of the patient, seem to render the case worth recording. A somewhat similar form was described by Fournier.—*Dr. E. D. Mapother, ibid.*

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION held its seventeenth annual session at St. Louis, October 14, 15 and 16, 1891, President Dr. C. H. Hughes, of St. Louis, in the chair. The attendance was large and the papers numerous and valuable. Dr. I. N. Love, the chairman of the Committee of Arrangements, and his assistants, deserve praise for their provision of receptions, rides, dinners, suppers, banquets. Dr. C. A. L. Reed, of Cincinnati, was elected president, Dr. E. S. McKee, Cincinnati, re-elected secretary, Dr. C. S. Bond, Richmond, Ind., first vice-president; Dr. T. H. Stucky, Louisville, second vice-president; Dr. Joseph Ransohoff, Cincinnati, chairman Committee of Arrangements. Place of meeting, Cincinnati, October, 1892.

JUDICIAL IDIOCY TEMPERED WITH BARBARISM.—In France a man was punished recently for life saving. It appears that a pregnant woman had just died, the cause of death not being stated. The curé of the village, who had been with her in her last moments, induced a neighbor who was in the room to perform cesarean section on the corpse with the view of saving the child. The operation was successful; but the operator was brought before the magistrate, and fined fifteen francs for having been guilty of illegal practice of medicine. Is not this rather too great refinement in the interpretation of a law intended for the protection of human life?—*Pacific Medical Journal*.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### OBSTETRIC NOTES

From One Hundred and Ninety Recorded Cases in the Author's Practice.\*

BY GEORGE W. COOK, M. D.

Of one hundred and ninety cases there were:

Primiparae .....	83	Seventh labors .....	3
Second labors .....	33	Eighth labors .....	2
Third labors .....	21	Ninth labors .....	1
Fourth labors .....	15	Twelfth labors .....	2
Fifth labors .....	9	Not recorded.....	10
Sixth labors .....	5		

Twins at term twice; head and breech in each case, with common placenta. Male and female in each case. Average weight of males, seven pounds and fraction; average weight of females, seven pounds and fraction. The weight, the best that could be ascertained, was unsatisfactory, the children not all being weighed in my presence.

#### RESULTS TO CHILD.

Number born alive .....	182
Number still-born .....	10
	192

#### SEX.

Males .....	112
Females .....	71
Not recorded .....	9

	192
From Nos. 31 to 46 inclusive.....	15, all males.
From Nos. 93 to 101 inclusive.....	9, all males.
From Nos. 154 to 160 inclusive.....	7, all males.
From Nos. 62 to 67 inclusive.....	6, all males.
From Nos. 135 to 140 inclusive.....	6, all males.
From Nos. 172 to 176 inclusive.....	5, all males.
and four in succession twice.	
From Nos. 75 to 79 inclusive .....	5, all females.
From Nos. 167 to 171 inclusive.....	5, all females.
From Nos. 28 to 31 inclusive .....	4, all females.

\*Read at the Annual Meeting of the Onondaga Medical Society in June, 1891.

#### RESULTS TO MOTHERS.

1 died of fever, labor supervening; 2 died of puerperal convulsions .....	3
Mothers recovered.....	187
Mothers died .....	3
Mother and child both died.....	2
Mothers in wedlock .....	176
Mothers out of wedlock .....	14

Attended same mother in four labors, in one instance; three labors, in five instances; two labors, in fourteen instances, with more or less miscarriages interspersed.

#### PRESENTATIONS.

Head vertex, left .....	177
Head vertex, right .....	2
Face .....	1
Breech .....	6
Footlings .....	3
Two footlings in case of same mother in two successive labors.	
Shoulder, with prolapsed hand.....	3
Shoulder .....	1
With three still-born children.	
Placenta previa.....	1, still born
Funis .....	2, still born

#### COMPLICATIONS.

Convulsions .....	4
Prolapse of bladder.....	1
Prolapse of funis .....	2
General anasarca of child .....	1

#### OPERATIONS.

Forceps cases .....	3
Version .....	5

Of which latter, three were in cases of convulsions, one in placenta previa, and one in uterine hemorrhage.

#### POSITION OF PATIENTS IN LABOR.

As regards the position of my patients during labor, I have followed no rules, or, if any rules, very flexible ones. The books prescribe certain positions—the English and Americans on the left side, the French on the back; some on a chair or chairs, some on assistants' laps, etc. I find that most women in labor are inclined to keep on their backs, which I allow them to do unless, for obvious reasons of fatigue, the position is changed to promote rest or to add the aid of gravity of the child to the

uterine efforts. Sometimes, in cases of lingering labor, when the pains are more tormenting than efficient, I have remarked the benefit of walking the patient about the room, and allowing her to have a few pains while on the knees, or even in the genu-pectoral or genu-elbow position, or on the feet, on the commode; in one or more or even all these different positions. If it be questionable whether these changes in position really result in any impulse to the progress of labor or not, it certainly has a moral and salutary effect on the patient herself, or on friends, or on all, and they thus are led to think that "something is being done."

#### NOTABLE CASES.

CASE NO. 34. On October 28, 1857, I was called in the night by a policeman and two Germans to go into the town of De Witt, some four miles distant from my residence, to see a woman who had been "sick" twenty-four hours. Reaching her bedside, I found a small woman, twenty-eight years of age, in labor with her second child, and on instituting an examination I found a prolapsed hand and forearm, a typical case of "shoulder presentation." The woman was having rather infrequent and feeble pains, as she was well-nigh exhausted from her long and fruitless labor, and I being "young and inexperienced," had a messenger sent to the city for help. In due time the late Dr. X. came, and after being informed of the state of affairs he at my request proceeded to deliver, bringing down the feet. This he quickly if not gently accomplished, although I had to use my utmost strength to keep him from pulling the poor woman off the bed. He soon got a boy baby, and the baby got a fractured femur. I delivered the placenta, and for the next few days I had to mend the woman and the baby's broken thigh. The delivery was *cito*, but not strictly *tuto* or *jucunde*. Mother and child "did as well as could," etc.

CASE NO. 60. February 2, 1859, was called in the night to Mrs. L., aged thirty-five years, whom I found in labor and in plenty of trouble with her eighth child. This was in Cicero, twelve miles from Syracuse and three miles from the nearest physician.

I found the woman on her back on a quilt

spread on the floor. Also found a prolapsed hand and forearm, with left shoulder presentation, strong expulsive pains, and utmost alarm. I soon succeeded in calming the excitement of patient and husband, explained to the husband the condition of things, and told him it was a case so serious that I wished counsel and assistance, as such was usual in cases of the kind. But no! he urged with his Celtic vehemence, "You can do it, Docther; I have known you a long time, and you can do it if any one can!" Well, not half believing him, and fortifying myself by pointing to him the danger to his wife and almost certain loss of the child, I cleared the field for action, and after a long and tiresome siege succeeded in introducing my hand, grasping both feet of the child, and by manipulating with the other hand externally the mother's abdomen succeeded in bringing down the feet with a speedy delivery of the child, still-born and no bones broken. The mother made a speedy and complete recovery, and in less than a year I got five dollars for my skill and for "going it alone."

CASE NO. 98. March 17, 1861, "St. Patrick's day in the evening," I was called to Mrs. H., another Irish woman, thirty-five years of age, and in her third labor. I found the house thronged by excited and clamorous women of the same extraction, the patient on the floor, and a miniature bedlam raging. Before I unlimbered I called a halt, and soon found a prolapsed hand and forearm, with a scapular presentation. I then told them that if they did not be quiet I would leave the house at once. I don't think they wanted me to do that, for they immediately became placid and lamb-like, got a straw bed for me, helped me get the poor woman on it, and as the uterine contractions were terrific I succeeded in bringing down the feet, but alas! there was a dead baby. "Both mother and child did," etc., and not an unreasonable time afterward I was handed another five dollars to count and put away in my long collapsed wallet.

These last two related cases occurred only two miles apart, yet I do not think they were "catching."

CASE NO. 132. January 31, 1869, Miss M., of Syracuse, needed my attention. I



found her lying on the sidewalk in the classic shades of East Water Street in evident distress, and with only the indifferent aid and comfort of a sister sinner. Miss M. was in the throes of childbirth. Willing, though awkward hands soon elevated her quivering form to the "sky parlor" of a near-by story-and-a-half mansion and placed her on a trundle-bed. A messenger was sent in quest of a couch, but before he got the couch I had gotten the baby, yet not until with the eyes of my fingers, I had found another prolapsed hand and forearm, and as the hemorrhage was frightful I moved at once on the works, and very soon, if not very skillfully, brought down the feet and then the baby entire with the sign *moribundus* plainly to be seen. This mother and child "did as well," etc.

#### PUERPERAL CONVULSIONS.

CASE No. 95. February 23, 1861, was called about 4 A.M. to Mrs. B., a little over a mile from my residence in Cicero, N. Y. Mrs. B. was twenty-two years of age, naturally stout, of full habit, plethoric and edematous, and pregnant with her first child. When I reached her room she was seated on a chair, and with a peculiar expression of countenance said, "Oh! how strange I feel!" and at once her head turned to one side and a terrific convulsion ensued. She was speedily placed on the bed, and as soon as possible I opened a vein, but soon another convulsion occurred, with almost entire arrest of the flow of blood. I sent a messenger at once for my neighbor, Dr. Wiggins, to come to my aid. On his arrival we tied the arm and drew blood as long as it would flow, as the convulsions came thicker and faster. We did not succeed in getting above twelve ounces of blood. We then found that labor had made slight progress, and quickly agreed that prompt delivery was the alternative. A messenger was hastened for the late Dr. Foran, of this city, who responded in about eight hours from the attack, when delivery was accomplished by aid of the forceps. The treatment meantime was inhalation of chloroform; but although that would allay in a measure the intensity of the convulsions, it did not their frequency. Delivery did not seem to have any effect on the convulsions, but they continued until death closed

the sad ordeal. The patient was speechless and unconscious from the first. Of course the child, which was large and well formed, was still-born. This was a clear case of convulsions from uremia, and the first case of my own I ever encountered.

CASE No. 119. November 10, 1866, Mrs. L., of this city, aged twenty-five years, in labor with her first child, was attacked with convulsions during the second stage of labor. The late Dr. M. D. Benedict was called to my aid, and promptly responded, applied the forceps, and easily delivered the patient of a living child. No more convulsions ensued. This was probably a case of convulsions from reflex nervous irritation. The mother made a speedy recovery.

CASE No. 157. I was called May 25, 1875, to Mrs. B., in DeWitt, in the night. Reaching her side I found a case almost identical with my first case, that of Mrs. B., of Cicero. Mrs. B. was a primipara and twenty-one years of age. She was unconscious from the onset of labor, and both mother and child died. Delivery was effected with the aid of the forceps.

It will be noticed that all the foregoing related cases of convulsions were in primiparæ.

I have encountered two other cases of puerperal convulsions of my own, and a few cases in consultation. In these cases, of reflex origin, I used large doses of morphia sulph. hypodermically and chloroform incidentally, with recovery of the patient and with living children, details of which it is unnecessary to relate. In the treatment of puerperal convulsions, delivery as speedily as practicable is usually imperative, and morphia, chloroform, chloral hydrate, croton oil, one or more or even all of them, the medicaments. Of the pathology of the disease the scope of this paper forbids discussing.

#### SOME RATHER UNIQUE CASES.

July 31, 1874, I was called well out on Mulberry Street in this city to Miss N., in labor with her first child. As I entered her room she started from her chair for her bed, and before she reached it, there was "a dull and sickening thud," and, lo! a child, followed by the placenta, was on the floor. The mother

never stopped on the way, but threw herself on the bed, and all was well with her and the child. I kindly telegraphed to her "gay deceiver," paid sixty-five cents fee, attended the young woman until she was able to leave, which she did, and left me to wait for my bill and disbursements. I am still waiting.

Moral: Don't be too liberal with your wealth in case of strangers or with but very few acquaintances.

#### PLACENTA PREVIA.

From the time I first "put out my shingle" until the issue of the case I am about to write, I never had a call to an obstetrical case without a shudder of dread of possibly encountering a case of placenta previa. At last it came. I can not give day and date, but it was sometime in the sixties. One evening on my return from the country I found a call on my slate to come at once to the Home, or hospital, that occupied the present site of the Fourth Presbyterian Church. On arriving there I found a pale and almost pulseless young woman, unmarried, a recent acquisition from Canada. I soon found that she was the subject of violent uterine hemorrhage, and had been ill all day. A homeopathist had been called, who prescribed, and left, and called again, ditto, but made no examination of the case digitally. I did, and found about three fourths of the area of a placenta presenting, which accounted for the fearful hemorrhage. Fortunately the matron found some brandy, a good dose of which, with an opiate, I gave the girl at once, and during the brief moments a flood of memories of what I had heard the silver-tongued Bedford say in his lectures to my class, in the New York University Medical College, of the verbose and pedantic writings of the late Prof. Meigs, of the good, plain, sound, solid sense and teachings of the late Prof. Simpson, of Edinboro, and of other sources I can not detail—all these came clamoring over the plains of memory, and a course of action to decide upon for the treatment of the case in hand. Prof. Bedford's method was my choice, viz., "To rupture the membranes, bring down the feet; to do this by insinuating the hand to one side of the placenta, or, if necessary, go through it."

I don't know which I did, but "I got there just the same," and as "all's well that ends well," I succeeded.

CASE No. 70. November 18, 1859. Miss S., age twenty-four, an invalid *ab initio*. I was called to her bedside at her mother's house, at night, of course, and found a very distressing case of colic. Had attended this young lady at intervals for some weeks for abdominal enlargement and miserable health generally. The "disease" simulated dropsy, ovarian or ascites, one or both, and "got no better very fast." On the night in question, after a brief investigation, the young lady's mother interviewed me in the wood-shed, and asked me what I thought was the matter with her. I answered, "It must be something like colic, but if she was only married I should think she was going to have a baby." "Which she is," said the mother, and sure enough in a short time the baby was born, which afforded me the one and only case of "spina bifida." It seems that one day toward evening, some months before, this young lady took a quite long walk to call on a lady friend and neighbor. She found the lady friend was away from home, but her dear husband was there to see to things, and it being so late, and the poor, sick girl so tired, he persuaded her to stay all night, and from that time dated her "dropsy." The child, like all *spinæ bifidæ*, soon kindly died.

CASE No. 125. February 22, 1868, I was called to Miss Maggie, aged twenty, and in labor with her first child. All went well until the head was born, when the progress was arrested and alarming hemorrhage took place. By taxis I found that the "cord" was around the child's neck twice, which used up the slack and pulled the placenta partly loose. As delivery or death to the mother was imminent, I gave a good dose of laudanum and whisky and pulled child, placenta, coagula, all, into the world. The patient was nearly exsanguinated, but I succeeded in inducing contraction of the uterus, and all proved to be well.

CASE No. 180. Miss S., twenty-two years. Saw this case in April, 1883, first, and noticed enormous edema of the feet and legs. I suspected albuminuria, which, on the usual test of the urine by heat and nitric acid, proved to



be the case—nearly one half in volume being solid albumen. I put her on tr. ter. chlor. iron and magnesia sulph., under which the edema and albumen lessened. I was expecting puerperal convulsions when labor occurred, which was June 12, 1883, but was happily disappointed. The albumen gradually disappeared, and the girl made a good recovery. So much for prophylaxis in this case.

#### PUERPERAL FEVER.

October 4, 1878. I attended Mrs. B., a Jewess, in labor with her second child. Presentation, vertex, left, uterus enormously distended, labor lingering and very severe, artificial rupture of membranes, and at last I delivered her of a girl of twelve pounds, and living. After-pains very annoying.

October 5th. Visited her next morning; she had slept but little; severe after pains and expulsion of large clots. I removed and enlarged the compresses over the uterus and exhibited opiates.

October 6th. Had passed a restless night, and at 8 A. M. had a severe chill; pulse at 10 A. M. 112, full and strong; pain in the head, and tender on pressure over uterus, with fever. R Morphia, gr.  $\frac{1}{2}$ , every two to four hours, and turpentine stupes. 3 P. M.: has been in less pain under morphia; continued treatment.

October 7th. Much better; pulse and fever subsiding.

October 8th. Much better.

October 11th. Up and dressed.

Was this case an attack of puerperal fever, or of exaggerated so-called "milk-fever weed?" If the latter, why such a pulse, chill, and tenderness of abdomen to pressure?

This is the only case in my practice that would be any thing like at home under the head of "puerperal fever."

#### CHLOROFORM.

In the use of chloroform in severe labor I am somewhat timid. Have administered it in a few cases in my early practice, which acted unpleasantly, though with no serious results. I think there is danger of cardiac paralysis and of undue *post-partum* hemorrhage. I prefer morphia.

In this paper it is not pretended or even hoped that there is any thing new or instructive in this *resumé* of my obstetrical experience, but it may serve to show some of the protean forms which the process of parturition may and does take on, and that in these one hundred and ninety recorded cases a goodly variety of these forms have been encountered. In treatises on midwifery we find the treatment and management outlined which we should pursue in any of these and other given cases; but many of the methods may fall far short of being practically available to us when called to encounter these unpleasant cases, so that at times, in an emergency, we decide and act *je ne sais quoi*, and if successful, that rule is of and for us.

Prof. Bedford, late of the University Medical College of New York City, that brilliant author and lecturer on midwifery, used to iterate and reiterate to his class, with his exceptional eloquence, with all the emphasis and earnestness of a master in his profession, this proposition: "Gentlemen, parturition is not a disease, but a process; and while remembering that 'meddlesome midwifery is bad,' you are to stand as sentinels and see that nature be not contravened; you are to be equipped and panoplied for the emergency; you are to assist as science and art have qualified you."

In my practice, if it has been notably conservative, you will at least award it a fair measure of success. Only three mothers died. I have in no instance deemed it necessary to invade the recently gravid uterus with hose and force pump. They did not resort to them in the days of our grandmothers. One of my grandmothers was the mother of thirteen children, and died of malarial fever at sixty-six. The other the mother of fourteen children, and died of hemoptysis, and I am quite sure they never were subjected to the uterine douche of carbolic acid or of mercuric chloride.

The older members of our arduous and responsible profession need not be reminded that in so small a list as one hundred and ninety cases there have been on the part of the patients untold suffering, agony, bravery, fortitude, even genuine heroism in many cases, and yet in many other cases loss of courage, strength,

and endurance, when hope had well-nigh taken its flight, when patient, husband and friends, under God, looked only to me for relief. You know how closely you are watched and criticised by those who, the less they know the more they exact; who think you are or should be almost able to have the baby yourself, or to tell them how and when the parturient will "get through;" nor is it necessary to recall your long, weary hours of watching, night and day, fraught with anxiety as to the result of the terrible ordeals which the poor women have to undergo! All this has made lasting impress on your memory and your health.

To the younger members of this Society I would say (the crudities and imperfections of this *resumé* being so patent), see to it that you formulate a record of your cases so clear and comprehensive, so available and so well kept up that at a glance you can summarize them under such heads as to make them more valuable than mine. Don't defer records, but make them as the cases occur, and thus avoid the labors and imperfections of a delayed digest.

SYRACUSE, N. Y.

## THE TOXIC ACTION OF MUSCARINE: ITS SEPARATION FROM ORGANIC MATTER.

BY C. J. RADEMAKER, M.D.

Muscarine is obtained from *Amanita muscaria* (Pers.), *Agaricus muscarius* (Lin.), Nat. Ord. *Fungi*.

*Description*: The stalk is about three inches high and about three fourths of an inch thick; white. The pileus is flattish or convex, scarlet or orange red, covered with white warts, and on the under side with lamellate gills. It has a disagreeable odor and a burning, acrid taste.

*Constituents*: The poisonous principle, according to Apoirger, is a crystallizable acid principle, soluble in ether. Leteiller separated an amorphous, tasteless substance that he named amanitin. It is insoluble in ether, but soluble in water. Schmiedeberg and Koppe first isolated the poisonous alkaloid, muscarine.

Muscarine is freely soluble in water, and more so in dilute acid solutions. The fungus can be entirely freed of its poisonous alkaloid by steeping it in dilute vinegar and expressing.

*Isolation of Muscarine*. In isolating this alkaloid advantage is taken of its free solubility in dilute acid solutions, filtering the expressed solution through animal charcoal, evaporating to dryness, redissolving the residue in distilled water, and crystallizing in an exsiccator over sulphuric acid. These crystals are repeatedly dissolved, first in distilled water, and lastly crystallized from alcohol, when they are left in a pure state. The sulphate was prepared as above. This salt is very deliquescent. It absorbs moisture rapidly and liquefies. The ready solubility of this alkaloid and its salts also accounts for its rapid absorption and poisonous action. Muscarine in its pure state is a colorless liquid of a syrupy consistence, odorless and tasteless, freely soluble in water and absolute alcohol, but insoluble in ether and chloroform. It has a strong alkaline reaction, and combines with acids to form salts, of which the sulphate is crystallizable.

*Physiological Action*. 0.659 gram (about ten grains) of the sulphate of muscarine prepared as above was given to a dog weighing thirty pounds. The symptoms manifested were as follows: Half an hour after eating the food containing the muscarine vomiting was produced, and followed almost immediately with evacuations from the bowels and passage of urine. The pupils became contracted and the heart's action irregular. The lachrymal secretion and flow of saliva were increased; at the same time the dog had general tremors. It completely recovered in eight hours. The next day the same dog was given the same quantity of Merck's sulphate of muscarine. The same symptoms were produced, the animal again recovering completely in eight hours.

*Separation of Muscarine from Organic Matter*. The vomited matter was collected (in each case separately) and placed in a clean evaporating dish, and extracted with ninety-eight per cent alcohol (to which a little  $\text{SO}_4\text{H}_2$  had been added) and filtered, the filtrate evaporated to dryness, the residue treated with a small quantity of distilled water and filtered, part of the filtrate treated with a solution of barium chloride until it ceased to produce a precipitate, the solution filtered from the precipitate and evaporated to dryness, the residue dissolved in a



small quantity of distilled water and treated with a solution of platinic chloride. This did not produce a ready precipitate, so the solution was evaporated nearly to dryness, and the excess of platinic chloride removed by means of alcohol and ether. The double salt was then dried in an exsiccator over sulphuric acid.

*Analysis of Muscarine.* 0.201 gram of this double salt left after incineration 0.061 gram of metallic platinum.

Metallic Platinum.	Am't of Double Salt.	Equiv. of Platin.	
0.061	:	0.201	:: 198 =
Equals the molecular weight of double salt.....		652	
Take from this one eq. of platinic chloride.....		340	

Which leaves two eq. of chloride muscarine.....	312
Take from this two eq. of hydrochloric acid.....	73

Which leaves two molecules of muscarine..... 239

This divided by 2 leaves the molecular weight of muscarine, 119.5.

#### CALCULATED FORMULA.

$(C_5H_{14}NO_2HCl)_2PtCl_4=30.41$  per cent Platinum.

#### FOUND.

$0.061 \div 0.201 = 30.34$  per cent Platinum.

The nitrogen in part of the alkaloid was converted into ammonia by means of soda lime, neutralized with HCl and precipitated with platinic chloride. 0.138 gram of this double salt left after incineration 0.061 gram of metallic platinum.

Eq. of Pt.	Eq. of Nit.	Pt. Left.	
198	:	14	:: 0.061 = 4.31 per ct. Nitrogen

0.2525 gram of substance gave 0.1932 gram of  $CO_2=0.0527$  gram of carbon= $20.87$  per cent and 0.1061 gram of  $H_2O=0.0118$  gram of H= $4.11$  per cent.

#### Summary.

CALCULATED.		FOUND.	
$(C_5H_{14}NO_2HCl)_2PtCl_4$	30.34 per cent Platinum.	4.31	" Nitrogen.
4.30	" Nitrogen.	20.87	" Carbon.
19.38	" Carbon.	4.11	" Hydrogen.
4.30	" Hydrogen.		

According to these experiments muscarine can not be considered a very powerful poison. But it demonstrates the fact that its action is almost immediate, even when taken with a full meal. The quantity of muscarine in mushrooms is at the highest one fifth per cent, consequently a man must eat a great many to get the poisonous effect. In case of poisoning by mushrooms the urine and vomited matter should be examined, the poison isolated, and submitted to an ultimate analysis.

Alkaloidal reagents and color tests are of no value. The physiological action and the ultimate analysis will prove positively that the poison is muscarine.

LOUISVILLE.

## Societies.

### NEW YORK ACADEMY OF MEDICINE: SECTION OF ORTHOPEDIC SURGERY.

Stated Meeting October 16, 1891. Samuel Ketch, M. D., President, in the chair.

Dr. Royal Whitman presented a patient illustrating the application of a brace for the more perfect fixation of the spine in disease of the middle dorsal region. The appliance consisted of two saucer-shaped pads covering the prominence of the shoulders, connected by an unyielding steel bar, passing across the chest, and two triangular hard rubber pads covering the lower two thirds of the scapulæ, connected by a steel bar. The Taylor back-brace was applied as usual, and the back-bar attached to its upper portion. The shoulders were then pressed back to their full limit, the front pads placed in position, and firmly attached to the brace by straps passing above to the neck-bar, and through the axillæ to the back pads which held the scapulæ against the thoracic wall. Motion of the spine was thus confined entirely to the neck. Although the necessary movements of the arms were not restricted, forward-reaching movements, which were always accompanied by flexion of the dorsal spine, were entirely prevented. This principle, the restraint of certain movements of the arms which tended to increase the existing deformity, was the point to which he wished to call the attention of the Society, as he was not aware that its importance had before been insisted on.

Dr. R. H. Sayre fully agreed with Dr. Whitman as to the necessity of keeping the shoulders back in this class of cases, but the difficulty hitherto had been to maintain such apparatus in proper position. In a paper which he had read at the recent meeting in Washington, he had called attention to the fact that when the disease was situated high up in the dorsal region the plaster-of-Paris jacket did not give

proper support because it failed to hold the shoulders back, and that in such cases he was in the habit of employing pressure backward on the tips of the shoulders.

Dr. Newton M. Shaffer thought that the apparatus exhibited acted admirably in fixing the shoulders, but it was open to the grave objection that by exerting pressure on the scapular plates in this way the uprights are prevented from exerting the proper amount of pressure at the seat of the disease, and so the apparatus was not able to arrest the traumatism of respiration. He thought this was a defect inherent in the apparatus, and not, as Dr. Whitman believed, simply an accident due to improper fitting of the brace to the patient's spine.

Dr. Whitman replied that he thought the apparatus exerted all the pressure that the skin would bear, and that by slightly modifying the curve of the uprights the defect noticed by Dr. Shaffer would disappear. His object in presenting the apparatus was to elicit a discussion on the question whether or not it was desirable in this particular class of cases to attempt to control the forward movement of the shoulders.

#### BOND'S OPERATION FOR TALIPES VALGUS.

Dr. A. M. Phelps presented a young man whom he had been treating for a number of years for a very severe case of talipes valgus. Almost all methods had failed to give more than temporary relief, although in one instance there was no relapse in the case for a whole year. The patient constantly wore a support for the arches during the time.

The patient sought for relief, not so much on account of the deformity, as because of the severe pain which he suffered, and which prevented him from standing on his feet. Without shoes he could hardly walk. His occupation was printing.

In conversation with Dr. Bond, of Westminster Hospital, London, England, Dr. Phelps had learned of the operation which in its author's hands had been successful.

The operation performed by Dr. Bond was for the purpose of relieving the pain, which it certainly does. He alluded to the operation as "firing," the same as is done for the relief of spavin in a horse.

The operation consists in making transverse incisions with a Paquelin cautery, beginning at the inner malleolus, and extending one third of the distance across the sole of the foot, cutting through the cellular tissue down to the muscles. About four of these incisions suffice. Two semi-circular incisions are made, crossing the transverse ones. It seemed to Dr. Phelps that if the arch of the foot, before the operation is performed, were well shoved up in place, and held with plaster of Paris for a few weeks, that the shortening of the tissues in the sole of the foot by cicatricial contraction would be more effectual and would hold the arch in the normal position.

The operation, when applied in this manner for the purpose of shortening the girders of the arch of the foot, is identical in principle with an operation which Dr. Phelps performed and reported to the American Orthopedic Association in 1889.

One objection which has been urged against the open incision method for talipes equinus is that the scar is quite likely to be sensitive, and it is interesting to note that in this case, the amount of the scarring being considerable, the patient walks upon the scarred tissues without any pain, and is able to work at his trade. The only support to the foot needed is an ordinary shoe slightly thickened on the inner side.

Dr. R. H. Sayre said that the amount of pain experienced in these cases of flat foot bears no relation to the amount of deformity. This patient's foot is still turned outward, and as in many other cases, when the foot is brought into the normal position, there is a very noticeable involuntary twitching of the peroneal muscles. The patient had been made comfortable once before for a period of a year, so that it was entirely too soon to say that the case would not relapse. As the arch of the foot is in large part maintained by the deeper structures, it seemed doubtful whether the scar tissues which did not go beneath the muscles would be sufficient to hold up the arch, although at present it did this very well.

Dr. A. B. Judson said that in view of the well-known fact that cicatrices after burns contract persistently and with great force, the operation was not only ingenious but quite likely to prove successful.



Dr. Whitman thought the operation absurd and extremely unscientific. No case of flat foot is cured until the important movement of abduction is perfectly free to its utmost limit. In the present instance abduction is not possible, and the case is only relieved, not cured. The only way to cure flat foot is by increasing the power of the muscles which support the weak portion of the foot.

Dr. Halsted Myers said that as the pain in flat-foot is largely due to periostitis about the attachments of the ligaments involved, and in the joint structures themselves, this operation with the Paquelin cautery might act beneficially by counter-irritation, just as it does in many cases of joint disease elsewhere. Relief from pressure during the healing of the wound was also an important factor in the cure.

The President stated that if this procedure of Mr. Bond gave permanent relief from pain it would constitute a valuable accessory to our methods of relieving this troublesome symptom. In working people, in whom this deformity occurred most frequently, the question of a perfectly formed or perfectly acting foot was secondary. What patients wanted was, first, relief from pain, and, second, feet that would give them an opportunity to earn a livelihood.

Dr. Phelps, in closing, said that the case was not presented as a cure for the deformity of hallux valgus, but that the flat feet seemed to be cured.

He had never observed periostitis in cases of flat foot, but he had frequently seen inflamed medio-tarsal joints, the result of pressure, and even the growth of new bone about the joints precisely as is seen in severe forms of lateral curvature.

The scaphoid bone is really the keystone of the arch, and when it is dislocated downward by the lengthening of the tissues in the sole of the foot it causes great pressure. The patient will experience pain. This pressure long continued results in inflammation and growth of bone about the joint.

He thought it more scientific to shorten the girders of the sole of the foot than to do an osteotomy.

#### A CASE OF MULTIPLE JOINT DISEASE.

Dr. R. H. Sayre presented a little boy who had had a strange combination of diseased joints, without any rheumatic history.

When about two years old the boy had a severe attack of scarlet fever, which was followed by an ischio-rectal abscess and a double otitis media, which still continues. About ten months after the attack of scarlet fever he fell, and shortly afterward the left knee became swollen and tender. A splint was applied and the knee soon appeared well. Shortly after this the right knee and the right hip joint became successively inflamed. He was then treated for about a year by traction, first in bed and afterward with a long traction hip-splint. After this the left knee, the right knee, and the left shoulder became successively inflamed, and so severe was the inflammation in the shoulder that at one time it was almost completely ankylosed. In 1888, after an injury, the right knee and right hip became swollen and tender, and it was at this time that the case first came under his observation. After the flexion had been overcome, a splint was applied which produced traction on both the knee and hip-joint. Photographs were exhibited showing the case with the splint applied. Last July it was considered safe to remove the splint. At present he has no pain, extension is good, and flexion can be made to a right angle. There is almost perfect motion at the hip-joint. He had looked upon the joint lesions as probably tubercular, but it was possible they were metastatic.

Dr. H. L. Taylor did not believe the joint lesions were tubercular.

The President also thought the whole clinical history pointed away from tubercular disease, and that the scarlet fever had probably given rise to a rheumatoid condition.

Dr. A. M. Phelps said the trouble was either rheumatic or metastatic, and as the joints did not suppurate, the former was the more probable origin. While the application of the splint probably assisted in bringing the case to so favorable a termination, it was quite likely that constitutional treatment alone would have been sufficient. He had been misquoted with reference to the occurrence of flexion at the hip-joint. Where the *whole* number of cases have

been reported, he believed the statistics would show that not five per cent have recovered without angular deformity, yet he believed that not one single case of hip-joint disease need recover with angular deformity.

Dr. Sayre said that it was not material to this discussion whether the joints were tubercular or septic. The point he desired to bring out was, that no matter what the nature of a long-continued inflammation of a joint, protection of that joint is necessary. He agreed with Dr. Phelps that no case of hip-joint disease ought to have angular deformity.

#### AN UNUSUALLY SEVERE CASE OF CONGENITAL LATERAL CURVATURE.

Dr. R. H. Sayre presented such a case. The patient is now fourteen years of age, but her mother says that at birth the deformity was nearly as great as now. It was one of the most severe congenital cases he had ever seen, and she first came to him one week ago. Examination at that time showed that between the lower and upper ribs was a large V-shaped gap, through which the liver could be felt. At the age of six years she had pneumonia, and shortly after this an abscess, which was probably connected with the pleura, opened through the right thoracic wall. Her breathing is puerile; there is no cardiac lesion. At the time of her birth the child presented transversely, and the labor was difficult, so that it is possible that this may have had something to do with the deformity. He thought all the ribs were present. When first seen her height was four feet six and three quarter inches, but after being suspended there was a gain of five eighths of an inch. He desired to call particular attention to this increase in the height as the result of the suspension. In another case, between September 5th and October 15th, there had been a gain of three fourths of an inch; in another there was also a gain during a month of treatment of three fourths of an inch, and in still another, which measured before treatment four feet nine and seven eighths inches, the measurement after about a month was five feet one and one eighth inches.

Dr. H. W. Berg said that the mere fact that the patient had such excellent use of her limbs

would show that the curvature was not due to a lesion of the brain or spinal cord. If the ribs were congenitally absent, there would be sufficient cause for the curvature without supposing any injury during labor.

Dr. Judson remarked that the case was an illustration of the fact that in lateral curvature the kyphosis is sometimes very considerable, and may be as serious as is seen in Potts' disease.

The President said that some years ago he had called attention to the frequency of lateral curvature in very young children, most of which he believed to be of congenital origin. He had repeatedly urged the necessity of the careful examination of infants' spines as a matter of routine, and thus, were deformity present, an early opportunity for treatment. He believed that were this done we should not see such distressing deformity as Dr. Sayre had presented. Quite recently Dr. F. Beely, of Berlin, had pointed out that in these early cases of scoliosis the bones of the head were not symmetrical. The case just presented was instructive as showing how great may be the deformity in cases which have not had the benefit of early and judicious treatment. Notwithstanding the deformity develops very slowly, so many cases apply for treatment with the deformity well marked that he was inclined to believe that a large proportion of all cases of scoliosis in children are congenital.

Dr. V. P. Gibney presented a case of hip disease, showing a remarkable recovery by nature's methods. A boy of eight years was admitted to the hospital in 1882 with disease of right hip in second stage. Family history tuberculous. Disease dated back to the previous April. On admission he was fairly nourished, hip flexed to 100 degrees and held in this position. Practical shortening of three and three quarter inches. On July 7, 1883, flexion had increased to 135 degrees, and an abscess filled the whole gluteal region. On October 12th the abscess opened. November 13th he had become greatly emaciated, pale, and waxy, the thigh acutely flexed on the abdomen and abducted, the head being apparently dislocated on the dorsum, while the whole thigh, from the junction of the lower and middle thirds to the



trochanter major, was undermined, and large quantities of pus were discharging from two sinuses. Could only sleep with the aid of two drams of the U. S. solution of morphia, and his condition was so bad that it was thought there was no chance of his recovery, and he was advised to be taken home. On the 27th of November he was visited by a member of the House Staff, who found him suffering from diarrhea and night-sweats, with poor appetite, a pulse of 130, and a temperature of  $101^{\circ}$ . On the 7th of December his condition was about the same, except that a bed-sore as large as a half dollar had formed over the trochanter on the sound side. Not seen again until October 14th of the present year, when he returned, looking hale and hearty. He said that after leaving the hospital he had been confined to bed for one year and a half, and had then begun to go about on crutches. For the past four years he had been wearing a five-inch high shoe. The site of the old abscesses and of the bed-sores are marked by very large cicatrices, the angle of greatest extension is 100 degrees, and that of greatest flexion is 90 degrees. The abductors are very tense. His measurements are as follows:

R. A.  $27\frac{1}{2}$ , R. U. 30, R. T. 6 in. down,  $13\frac{1}{2}$ , R. K. 12, R. C.  $10\frac{1}{2}$ .  
L. A. 29, L. U. 36, L. T. 6 in. down,  $17\frac{1}{2}$ , L. K. 13, L. C.  $11\frac{1}{2}$ .

#### THE NECESSITY FOR EARLY MECHANICAL TREATMENT IN INFANTILE PARALYSIS.

Dr. W. R. Townsend read a paper with this title, calling attention to the various stages of the disease, the methods of making a prognosis as to return of power and as to deformities resulting, and demonstrating the value of mechanical treatment in all stages, but especially in that before the appearance of deformity as a method of prevention.

Dr. H. W. Berg called attention to the importance of avoiding heavy apparatus, which often seriously interferes with the paralyzed muscles. In addition to this, all such apparatus should be applied from a healthy fixed point of support. One of the most troublesome symptoms in long-standing cases of infantile paralysis is the low surface temperature. He had given relief in two recent cases by wrapping

the limbs at night in cloths wrung out of ice-water, and covering these with warm bed-clothes.

Dr. Whitman said that the author spoke of equinus and equino-varus as the most common deformities in untreated cases. Equino-valgus he thought to be the most common deformity in treated cases, and it was very difficult to prevent.

Dr. Shaffer said that in the fourth stage, where contractures occur and paralyzes are very pronounced, he had met with a very surprising series of cases. He had records of four cases of equinus in adolescents and adults, where the anterior tibial muscles and the quadriceps extensor femoris were involved, and the patient sought relief on account of the deformity of the feet. He had, by means of his antero-posterior traction-shoe, restored considerable power to these muscles. Another important point was the improvement in the nutrition of the feet resulting from this traction. One patient used to come periodically, as she expressed it, to "get her feet warm." Not only would the feet get warm during the application of the traction, but they would remain so for the rest of the day. He had never seen such results follow the use of electricity and massage, and similar methods of treatment, with or without tenotomy. Of course, in calcaneus cases this traction can not be applied, and hence these desirable results can not be obtained. The cause of the improvement seemed to be the peripheral nerve irritation occasioned by the traction exerted principally upon the gastronemius and all the other resisting tissues. He had known the calf circumference to increase half an inch by actual measurement during a month of this treatment.

Dr. R. H. Sayre thought that one explanation of the increased power of the quadriceps extensor could be found in the fact that the feet were placed in a position where they can be used more advantageously.

Dr. Judson considered the paper worthy of much attention, and it was a matter of congratulation that the profession at large already recognized the importance of sending these cases to orthopedic surgeons.

Dr. H. L. Taylor thought that we might go

even further than the author and state that a very large majority of the deformities of the lower extremities are preventable by proper orthopedic treatment. A very badly deformed foot from slight paralysis will often prevent the use of many muscles, and even where muscular power can not be restored proper mechanical treatment will often secure to the patient very respectable locomotion. Mechanical treatment, by enabling the patient to go around more naturally, will often increase the warmth of the limbs, but for a very bad case he had for a long time made use of hot, dry air, or of two woolen stockings, one underneath and the other over the brace, to keep up the proper temperature of the parts.

The President said that it was a popular idea that braces tend to bring on increased weakness of limbs and various disorders, and until recently the great obstacle to beginning mechanical treatment in the early stages has been the opposition of parents and of the attending physician. Within the last year he had seen two or three cases quite early and had noticed a stage of tenderness which might possibly prove a temporary contra-indication to mechanical treatment. He did not think this condition had been mentioned very generally by orthopedic writers.

Dr. Whitman said that he had many times met with this condition.

Dr. Townsend, in closing the discussion, said that he thought much of the opposition to braces arose from the fact that orthopedic surgeons were not agreed among themselves as to what kind of apparatus was most suitable for the treatment of the different classes of cases. He desired to emphasize the importance of that part of the paper which refers to the experiments of Mr. Young on electrical examinations of muscles. If by such an examination one could ascertain that in a given case contractures and deformity would result, the task of persuading parents to allow their children to receive early orthopedic treatment would be a much easier one than now.

A new Austrian Military Pharmacopœia is to enter into force in January, 1892.

## Reviews and Bibliography.

**International Clinics; A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology.** By Professors and Lecturers in the Leading Medical Colleges of the United States, Great Britain and Canada. Edited by JOHN M. KEATING, M.D., Philadelphia; J. P. CROZIER GRIFFITH, M.D., Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., London, and DAVID W. FINLAY, M.D., F.R.C.P., London. 357 pp. Philadelphia: J. B. Lippincott Company. 1891.

The next best thing after attending clinical lectures by competent professors is the reading of such lectures after they have been carefully revised by the authors. If such a series of lectures had no other use than to supply suggestions to other teachers than the one who delivered them, an enterprise of this kind would be justified. The time has come when the author is to pick the kernel, and not throw out to his readers a mass of hulls and trash from which crumbs are to be culled. In international clinics this is fairly well done, many of the lectures being characterized by fullness and freshness that can not fail to captivate and instruct the reader. In this volume are found lectures by James Ross, James Finlayson, Christopher Heath, W. T. Gairdner, Charles Parkes, Geo. Henry Fox, David Ferrier, Theophilus Parvin, and many others known to medical readers of every country. The liberal enterprise can hardly fail to meet with an abundant success.

D. T. S.

**Text-Book of Ophthalmoscopy.** By EDWARD G. LORING, M.D. Edited by F. B. LORING, M.D. Part II: Diseases of the Retina, Optic Nerve, and Choroid, their Varieties and Complications. New York: D. Appleton & Co., 1, 3, and 5 Bond Street. 1891.

This is the second volume of the text-book started by the late lamented Dr. E. G. Loring. The first volume was reviewed in these pages four years ago. His untimely death before its completion has placed in other hands the fulfillment of the task. The work is remarkable for the minuteness with which every subject considered has been discussed. Diseases of the retina are first taken up. One hundred and seventy-nine pages are given to their descrip-



tion. Nowhere can so much valuable information be found in book form. Following the description of retinal diseases are fifty-four pages given to the optic nerve, which is most interesting, especial attention being given to optic nerve diseases in connection with general disturbances, especially uterine diseases and pregnancy.

The remainder of the volume is taken up with choroidal diseases, and here is where the volume shows the want of the master who designed the work. This portion is fragmentary and unsatisfactory.

Taken as a whole, the book is invaluable to the specialist, and a fitting monument to one of the most accomplished of ophthalmoscopists.

J. M. R.

**Syllabus of the Obstetrical Lectures in the Medical Department of the University of Pennsylvania.** By CHARLES RICHARD MORRIS, A. M., M. D., Demonstrator of Obstetrics. Second edition. 188 pp. Price, \$2. Philadelphia: W. B. Saunders. 1891.

This syllabus, having been prepared with especial reference to the lectures on obstetrics given in the University of Pennsylvania, its usefulness for the purpose for which it is prepared is not so great elsewhere. But it covers the subject so thoroughly that it must prove of great value to students and practitioners everywhere, as a means of fixing in a clear and concise form knowledge derived from a perusal of larger treatises. It differs from some of the catchy manuals before the public, in that it dodges no subject connected with obstetrics, however profound it may be. The work is full, clear, concise, and orthodox.

D. T. S.

**Collected Contributions on Digestion and Diet.** By SIR WILLIAM ROBERTS, M.D., F.R.S. 261 pp. Philadelphia: Lea Brothers & Co. 1891.

This volume consists mainly of a reprint of two publications by the author which are already familiar to the medical public. They are the Lumleian Lectures on the Digestive Ferments and Artificially Digested Food, and on Dietetics and Dyspepsia. To these have been added several other short essays of the eminent

author on the same general theme. The work is very interesting, as coming from one so eminent and taking a course so aggressive in matters that are treated by many, apparently of the same views as himself, in an apologetic manner.

Dr. Roberts does not hesitate to favor the moderate use of alcohol both as a promoter of digestion and of a high order of nutrition. Meat and alcohol he considers "high feeding," while vegetables are considered to be low-feeding, and esteems the former class of food the better both for the individual and the race. There can be little doubt that the extravagant crusade against the temperate employment of alcohol that is just now subsiding will be still more modified by the thoughtful contributions of such men as the author of this book.

**Seventh Annual Report of the Secretary of the State Board of Health of the State of Michigan,** for the Fiscal Year ending June 30, 1890. 324 pp. Lansing, Mich.: Darius D. Thorp, Printer and Binder. 1890.

In both scientific and literary interest it is no reflection on other States to say that the reports of the Michigan State Board of Health stand easily at the head. If a combination could be made of the plan of the Illinois Board for the elevation of the standard of medical education and the scientific features of the Michigan Board, and imitated by all the other States, a foretaste of something like a millennium in matters medical would be the result.

**A Manual of Diseases of the Nose and Throat,** including the Nose, Naso-Pharynx, Pharynx, and Larynx. By PROCTOR S. HUTCHINSON, M. R. C. S., Assistant Surgeon to the Hospital for Diseases of the Throat, London. With illustrations. 124 pp. Philadelphia: P. Blakiston, Son & Co. 1891.

This work has been written for the purpose of supplying a book which may give in a condensed form such information as may be needed by those who are not in a position to pursue an extended course of study in the department of medicine to which it relates. It is a work worthy of full commendation, and is evidently written by one who is a master of

style and a master of his subject. "Business" interests are not subordinated to scientific truthfulness, as is the case with so many of the crude advertising monographs in our own country. Thus, expressions like the following, that "many persons have more or less asymmetry in the anterior nares, slight deflections or spurs from the septum being frequently seen, without necessarily giving rise to symptoms or requiring operative treatment," are quite in contrast to the alarming prognosis and diagnosis often met with in connection with these cases. We commend the little work heartily and unreservedly.

D. T. S.

**A Hand-book of Obstetrical Nursing, for Nurses, Students, and Mothers**, comprising the Course of Instruction in Obstetrical Nursing given to the Pupils of the Training School for Nurses connected with the Woman's Hospital of Philadelphia. By ANNA FULLERTON, M. D. Second edition, revised. 222 pp. Philadelphia: P. Blakiston, Son & Co. 1891.

No work that we have seen on obstetrical nursing more effectually points out the duties of the nurse and distinguishes them from those of the physician than does this of Dr. Fullerton. Too many able writers forget that they are writing for the nurse and not the physician, and consequently go into many matters that concern him alone. This is rightly characterized a work for nurses, students, and mothers. If a woman's name were not appended, the nice appreciation of all the little points in toilet, dress, or the like would betray the woman author. Dr. Fullerton has acquitted herself well of her task.

D. T. S.

**The Year-Book of Treatment for 1891: A Critical Review for Practitioners of Medicine and Surgery.** 480 pp. Philadelphia: Lea Brothers & Co. 1891.

For the current year the Year-Book has been increased considerably in size, but the original plan of the book remains as before. Its aim of supplying a concise epitome of the chief articles of the year, with brief criticisms and full references, has been well carried out by the eminent corps of collaborators engaged in the work. We fear, however, that in other countries, as in this, writers have been quoted

whose word is far from carrying conviction to those who know them best. Indeed it might be said with justice that if the uniform success reported, even by writers most favorably known, is a fair sample of average results, there is no urgent occasion for further improvement in medicine. "All things (nearly) work together for good" for every one that prescribes. It is sad to think how many of these so satisfactory measures will have lost their place in the next Year-Book that appears. But withal it is not too much to say that this work is distinctly superior to all others of like character.

D. T. S.

**Minor Surgery and Bandaging**, including the Treatment of Fractures and Dislocations, Tracheotomy, Intubation of the Larynx, Ligations of Arteries, and Amputations. By HENRY R. WHARTON, M. D., Demonstrator of Surgery, etc., in the University of Pennsylvania. 497 pp. Philadelphia: Lea Brothers & Co. 1891.

This work presents a concise and at the same time eminently clear description of the various bandages, surgical dressings, and minor surgical procedures at present employed in the practice of surgery. Especially full consideration has been given to the preparation and application of the more commonly used antiseptic dressings. The text is fully illustrated with cuts, while the verbal descriptions are not anywhere surpassed in their clearness and intelligibility. While not strictly in the province of minor surgery, the author has introduced short articles on tracheotomy, intubation of the larynx, ligation of arteries, and amputation, with a view of adding to the value of the work.

D. T. S.

**Essentials of Anatomy and Manual of Practical Dissection**, together with the Anatomy of the Viscera, prepared especially for Students of Medicine. By CHARLES B. NANCREDÉ, M. D., Professor of Surgery and Clinical Surgery in the University of Michigan, etc. Fourth edition, revised and enlarged by an Appendix containing Hints on Dissection by J. CALMERS DA COSTA, M. D., based on the latest edition of Gray's Anatomy. 388 pp. Price, cloth or oil cloth, \$2; sheep, \$2.50. Philadelphia: W. B. Saunders. 1891.

A medical work in its third edition and fourteenth thousand can scarcely stand in need of



review, being already in the hands of perhaps one tenth of the physicians of the country. In our review of former editions we felt constrained to speak of it in very flattering terms, and in its revised form it is even still more deserving. There may be, as the old proverb has it, no royal road to learning, but by such works as this the road is made every year more easy.

D. T. S.

**Essentials of Physiology**, arranged in the form of Questions and Answers for Students of Medicine. By HOBART A. HARE, B.Sc., M.D., Professor of Therapeutics in Jefferson Medical College, Philadelphia. Third edition, thoroughly revised and enlarged by the addition of a series of handsome plate illustrations taken from the celebrated *Icones Nervorum Capitis* of Arnold. 193 pp. Price, \$100. Philadelphia: W. B. Saunders. 1891.

The addition of a large number of plate illustrations from Arnold's *Icones Nervorum Capitis* gives a distinctly larger value to an already excellent work, and will doubtless promote the study of the very difficult subject of the anatomy and physiology of the cranial nerves. But even with these aids whoever expects to find this knowledge easy of attainment will be mistaken. It would seem that some sort of mnemonics might be devised for the grouping of these parts in the memory.

The work is gotten up in the clear print and attractive style of all the Saunders series of question compends, and every way deserves commendation.

D. T. S.

**A Compend of Human Physiology**, especially adapted for the Use of Medical Students. By ALBERT P. BRUBAKER, A.M., M.D., Demonstrator of Physiology in the Jefferson Medical College, etc. Sixth edition, revised and improved. With new illustrations and a Table of Physiological Constants. 198 pp. Philadelphia: P. Blakiston, Son & Co. 1891.

This is number four of the Blakiston Quiz Compends, and embraces in compact form all the fundamental facts of human physiology. While its arrangement allows a large number of facts to the page, there are many who find a restful effect on the mind in the method of question and answer that greatly aids the memory.

D. T. S.

## Abstracts and Selections.

**THE TREATMENT OF TYPHOID FEVER.**—Typhoid fever, like pulmonary tuberculosis, offers a tempting field to the therapist. Both diseases are very common, and among the heaviest items in our bills of mortality, both abound in casualties and complications that seem to invite therapeutic activity, and both have been, so far, rebellious to any thing in the nature of specific treatment. As regards the therapeutics of typhoid fever, a new proposal comes to us from Königsberg. Dr. Valentini, assistant at the clinic of Professor Lichtheim, has been treating the disease by the ingestion of very large quantities of fluid, and very great and exceptional success is claimed for this procedure. Dr. Valentini gives typhoid patients two liters of milk, one liter of bouillon, and as much water as can be absorbed without producing disgust and repulsion. He also gives two hundred grams of sugar of milk dissolved in water, partly for its nutritive, partly for its diuretic action. Cold baths were also freely used, and their possible efficacy must not be lost sight of in endeavoring to form a just estimate of the efficacy of Dr. Valentini's methods. A marked feature in the clinical history of these cases was, as might have been expected, the presence of rather free diuresis. The amount of urine secreted was in some cases as much as two liters in twenty-four hours. Dr. Valentini is not disposed to attribute the good results which he claims for his method solely or even chiefly to its probable influence upon elimination. He rather inclines to think that it operates beneficially by restoring to the organism the fluid of which it is deprived by the febrile process. The continuous thirst and the scanty urine observable in fever patients are, according to him, the cry of nature for the free administration of water or of some simple diluent.

Various similar proposals have been made at different times in the history of medicine, all having as their aim the restoration to the organism of the fluid elements of which it had been deprived by febrile processes. Copious injections *per rectum* have been recommended, intravenous injections of salines have been used, especially in cholera, and there is another plan, known as the method of Sahli, which is to inject water into the subcutaneous tissues. The rectal injections would seem to fail in the primary point aimed at viz., the increased absorption of fluid. The plan of intravenous injections has been found to be beset with considerable dangers, and the method of Sahli is painful, and requires the constant intervention of the physician. There remains the simplest

method of all, which is now afresh pressed upon our attention by Dr. Valentini. We propose to offer a few criticisms upon his procedure.

We may first of all freely admit that there is something to be said in its favor. Nutrient must be given to typhoid patients in the fluid form; the free administration of diluents seems grateful to such cases, and no harm seems to come of freely satisfying the thirst of which they so commonly complain. But we are skeptical of the success of any therapeutic method which seems to proceed on the very questionable if not wholly erroneous assumption that the withdrawal of fluid from the organism is the cardinal feature of the febrile state. There is really no solid foundation for such an idea. The febrile state is an exceedingly complex condition, of which a heightened temperature of the body, acceleration of the pulse and respiration, diminished capacity of assimilation, and destruction of fluid in the organism are striking features; but to treat the last point as if it alone were worthy of attention seems at least as great an error as concentrating attention upon the pyrexia, and gauging the success of our treatment by the vigor of our antipyretic measures. Again, most practical physicians who have treated large numbers of cases of typhoid fever by the administration of from three to five pints of milk daily will agree that under this treatment thirst is assuaged so as to be rarely seriously complained of. There seems little advantage in pouring in fluids beyond the point at which thirst is effectively relieved. Most observers are agreed that the typhoid patient is under the influence of a general constitutional poison which runs a fairly definite course, with characteristic developments and dangers at the various epochs, and that the aim of rational therapeutics is to husband the patient's strength, to avert or combat the various possible complications, and to await the normal subsidence of the activity of the typhoid virus. To imagine that the mere ingestion of water will achieve all these indications seems to us a proposal which has the sole merit of simplicity.

No success seems hitherto to have attended the very natural and laudable efforts to find either an antidote for the typhoid poison or some means of "disinfecting" the bowels at the seat of the disease. Sulphurous acid, sulpho-carbolate of soda and a host of other such remedies have had virtues of this kind attributed to them, but apparently on the slenderest evidence. The best authorities, in this country at least, now treat typhoid fever with a minimum of interference. Correct dieting, milk being the staple; the control of diarrhea, if excessive; the relief of hyperpyrexia, especially by the use of the cold bath or cold sponging;

the combating of hemorrhage, bronchial catarrh or other complication—such seem to be the generally accepted lines of treatment. In this country we use milk more freely than on the Continent, where veal tea figures much more largely than here. On the whole, the advantage seems to be with the English practice. On the other hand, we have probably lost something, as compared with our continental brethren, in our relative timidity in using the external application of cold for the reduction of temperature. Where the cold bath is objected to, cold sponging will generally be found of great value. The propriety of the use of antipyretic drugs, at all events as a routine practice, is open to great question.

If these methods of treatment are simple and unheroic, it is at least very satisfactory to note that by their adoption and intelligent application the mortality from typhoid fever in this country is being steadily reduced.—*London Lancet*.

**CONTAGIOUSNESS OF PHTHISIS.**—The idea that phthisis is contagious is a very old one. More than a hundred years ago the medical faculty of Naples came to the conclusion that in this complaint they had to deal with an infectious disease, consequently for over sixty years the most rigid laws were laid down in connection with patients afflicted with this dread affliction. They were treated as severely as the lepers of old, driven from their homes and shunned by every one. A heavy fine was inflicted on any medical man failing to report a case that occurred in his practice. Any room in which a case had died was thoroughly disinfected, all bedding destroyed, and the wood-work taken out and replaced by new. In spite of these stringent measures the death-rate from phthisis continues as high as ever.

With Prof. Koch's discovery of the tubercle bacillus this theory received a fresh impetus, and numerous papers have been written advocating or decrying the treatment of phthisical patients in the same ward as other patients. The fact that a disease is caused by a micro-organism is certainly strong presumptive evidence that it is infectious. A great number of statistics have been collected to show that phthisis may be communicated from person to person living constantly together, such as husband and wife, or in crowded institutions such as convents. Apparently affirmative results have been produced from the large nursing sisterhoods on the Continent. But much caution must be used and further investigations made before the theory of the contagiousness of phthisis can be accepted. Phthisis is most rampant where human beings are crowded together



in damp and ill-ventilated dwellings. The hygienic arrangements of many of these convents leave much to be desired; they are greatly overcrowded, and thus the statistics lose much of their value.

Again, experiments by Dr. Heneage Gibbes and others have been made to ascertain whether tubercle bacilli are to be found in the breath of consumptive patients, but these experiments are open to one great source of error, namely, that the color tests for the bacilli only were employed. These tests are obviously unreliable, as, though the bacilli may not be present, their spores may be. Great force has recently been added to this argument by the experiments of Corbet, who found that animals inoculated with dust obtained from rooms in which consumptive patients had been living became tubercular, but the color tests for the bacilli proved negative.

A good *resumé* of this subject is given in a pamphlet not long ago published by Dr. T. J. Mays, of Philadelphia. He is most decidedly opposed to the theory that phthisis is contagious. He cites the oft-quoted statistics of the Brompton Hospital, which show that during a period of thirty-six years not a single authenticated case of phthisis arose within its walls among its 280 physicians, residents, and nurses, of which there existed a health record. Dr. Mays further gives the statistics of the Friedrichshain Hospital in Berlin, which show that out of 989 physicians and nurses only ten became tubercular, and three of these showed evidences of the disease before entering the hospital.

Dr. Brehmer, in his work on the etiology of phthisis, states that at Görbersdorf, where his institution is situated, during the last twenty years more than 10,000 phthical patients resided in the hospital, who walked the streets of the town and commingled with its inhabitants, and who would therefore apparently crowd the air with tubercle bacilli, yet the mortality is fifty per cent less among the Görbersdorf population than it was before the hospital was established. In dealing with the report of the Collective Investigation reports of the British Medical Association, in regard to the liability of contagion between husband and wife, or between members of the same family, etc., in which 278 answers were received (778 being negative, 39 doubtful, and 261 affirmative), Dr. Mays remarks that the large number of affirmative answers is not to be taken as proof of the contagiousness of this disease, for the aim of the inquiry was not to ascertain the number of absolutely well-demonstrated cases in which contagion was present or absent, but to collect the individual opinions of a large number of physicians as to whether they believed the dis-

ease to have been contagious in certain cases or not; and he justly asks if we are to assume that the 261 opinions are of more weight than the 778 negative ones. Dr. Mays then quotes the figures of Dr. Schnyder, of Switzerland, who gives a record of 844 cases of phthisis occurring among married people. In 445 of these the husband only was phthical, and in 367 the wife only, while in 32 both husband and wife were affected, showing that in 812 instances there was not the least proof of contagion. Again, Dr. Flint gives the history of 670 cases of phthisis which affected husbands and wives, and among these there were only 5 in which there was suspicion that the disease might have been contracted from one or the other. M. Leudet shows that out of 112 widows and widowers whose consorts died of phthisis only seven became phthical.

On carefully considering the statistics given above, it is impossible to come to the conclusion from them that the case for the contagiousness of phthisis has clearly been made out; the instances in which transmissibility may be suspected can surely be accounted for as coincidences in a disease so prevalent as phthisis. We are not aware of any reported cases in which infection has been proved in any of the English hospitals for consumption, although the phthical patients mix freely and sleep in the same wards as other patients. But, although no decided verdict can yet be given, yet in face of the important results obtained by Dr. Corbet it behooves us to lay down the most stringent regulations as regards the disposal of the sputa of phthical patients, to burn the expectoration daily, to compel the patients to use spittoons containing some disinfectant, and to prevent them from expectorating on the floor or into handkerchiefs. We would also urge that the walls of the wards and the beds should be frequently cleansed and free and efficient ventilation assured.—*Ibid.*

THE GASTRIC JUICE IN BRIGHT'S DISEASE.—Biernatski has recently investigated the gastric juice in Bright's disease by the modern methods of research, and reported his results in *Vratch* (1891, Nos. 12, 18, and 21), of which *La Province Médicale*, October 10, 1891, gives an abstract. He selected twenty-five cases of Bright's disease, uncomplicated by disease of other organs, and particularly those cases which had not presented any digestive troubles, and which were not ascitic. The cases were all in the earlier stages, oliguria and edema having been present only one, two, or three weeks, and in age were between twenty-five and forty, with a few over fifty. He gave trial meals, and determined the HCL qualitatively by the

Gunzberg test, and quantitatively by the Sjoquist method. The biuret reaction was used for peptones, Uffelmann's test for lactic acid, and the total acidity determined by decinormal solution of soda. The peptic power was determined by artificial digestion of albumen cubes, and the lab-ferment and lab-zymogen investigated by the methods of Klemperer and Boas.

From this it will be seen that his methods were sufficiently complete to make his results valuable.

From his observations this general result was obtained: The intensity and duration of the gastric secretion are diminished in nephritis.

There were always great variations in the quantity of free hydrochloric acid, which was more or less diminished or entirely absent. After the Ewald trial meal the free HCL was rarely more than 0.02 per cent to 0.04 per cent. The total acidity, however, was frequently above normal, notwithstanding the diminished amount of HCL. While peptonization always occurred, it was always slow or incomplete, notwithstanding the addition of free hydrochloric acid to the gastric juice. The lab-ferment and lab-zymogen were always deficient, and lactic acid was never present in large quantities.

The quantity of free HCL present is usually if not always below normal, but it is subject to great variations. A very direct relation seems to exist between the renal secretion and the secretion of hydrochloric acid. Oliguria and edema diminish the secretion of hydrochloric acid. In acute nephritis the secretion of hydrochloric acid very quickly returns to normal when the renal symptoms disappear, but in chronic nephritis the acid secretion does not reach a normal amount as long as there is albumen in the urine, even after the disappearance of edema and oliguria.

In general it was found that the longer the disease had continued the more marked was the disturbance of the gastric secretion. The influence of uremia was studied only in mild cases, and these showed a diminution in the hydrochloric-acid secretion greater than could be accounted for by the oliguria or edema present, or by the duration of the disease.

From the foregoing it may be inferred that a diminution in the secretion of hydrochloric acid occurs in renal incompetence, and is proportioned to the degree of the renal incompetence.

It is to be regretted that Biernatski did not determine the relation of hydrochloric-acid secretion to urea excretion, and thus bring his work into closer relation with that of Dr. Bond, of Richmond, Ind.

It was found that the secretion of pepsin did

not bear as direct a relation to the variations in the renal disorder as did the secretion of hydrochloric acid. In general it was found that the complete absence of pepsin is more frequent in nephritis, either acute or chronic, than the complete absence of free hydrochloric acid. This last observation is particularly valuable when it is borne in mind that direct investigation of the stomach contents has shown that in the great majority of primary dyspepsias the peptic strength of the gastric juice is not impaired.

Notwithstanding the diminished amount of gastric secretion, very slight evidences were found of any abnormal fermentations occurring in the stomach, which is due, according to the author, to the unimpaired mobility of the stomach.

The causes of the gastric disorders in nephritis are certainly complex, but it is probable, as the author suggests, that one of the factors concerned is the depressing effects upon the gastric mucosa of the waste products which have failed of elimination by the kidneys. Under these circumstances the gastric mucous membranes may possibly assume an excretory rôle. Poisons passed in this way, which would at first cause functional disturbances, would in time lead to the production of anatomical lesions, particularly atrophy and fatty or amyloid degeneration of the mucosa.

The changed chemical composition of the blood is no doubt another factor in the modification of the gastric secretion. Biernatski attributes the origin of pepsin to the albumen of the blood, and holds the hypo-albuminosis of this fluid responsible for the diminished secretion of pepsin. This latter statement can hardly be accepted without great reservations.

By way of treatment the author suggests the use of peptonized milk and the administration of lime salts, because of the absence of lab-ferment. Hydrochloric acid lemonade diminishes the unpleasant sensations of the patients, and at the same time regulates the alvine evacuations by stimulating peristalsis. Moreover, the hydrochloric acid diminishes the intestinal putrefaction, which is singularly exaggerated in this disease, as the author has shown by urinary examinations.—*Jour. Amer. Med. Association.*

SO-CALLED STRUMOUS INGUINAL LYMPHADENITIS.—The pathology of the chronic forms of inguinal lymphadenitis is still a disputed question. I incline to the view of Culvert (Eulenberg's Encyclopedia) and Klotz (*Berlin. klin. Wochenschr.*, 1891), that the majority of cases known under the names of strumous buboes, indolent sympathetic buboes, hyperplastic lymphadenitis, etc., are caused by the absorp-



tion of pyogenic material, and are not due to scrofula, tuberculosis, or syphilis. Of forty-three cases that I have observed, the majority had suffered from gonorrhea from six months to five years before they presented themselves. Three patients had chancroids, and one also a syphilitic chancre, a number of months before they came to be treated for the lymphadenitis. In five cases the swelling in the groin was attributed by the patient to the lifting of a heavy load, while for the rest no cause was ascertainable.

As a rule, the patients came during the later stages of the disease and presented the following symptoms: Face pale and ash-colored, loss of appetite, a tired feeling, pains in the limbs, chilly sensations alternating with sensations of heat, night-sweats. Temperature varying between 100° and 102° F.

Upon examination a large nodular tumor, irregular in form, often fluctuating at one or more points, is found in one or both groins. The skin covering the tumor is, in contradistinction to the virulent bubo, of a livid blue color, and is not infrequently perforated by one or more fistulous tracts. There is usually but little pain upon pressure. *In all cases the glands contained a great many miliary abscesses*, otherwise showing only a hyperplasia of the connective tissue and the medullary lymphatic tissue. Of micro-organisms, staphylococci and streptococci were found. Hypertrophied lymphatic vessels run over and through the substance of the tumor. In some cases the glands presented one large fungous mass, in which no individual gland could be made out. The time required for the development of the tumor as described varied between six months and three years. No tuberculosis was found among the cases, and after the operation the patients presented a strong and healthy appearance. Strict antisepsis or asepsis is necessary in the extirpation of the glands, on account of the important structures in the neighborhood of the inflammatory focus. If the glands are not removed before the pus has broken through the capsule, the patients are exposed to the following dangers: hemorrhage and gangrene, in consequence of erosion of the femoral vein; deep abscesses of the thigh and pelvis and retroperitoneal abscesses; coxitis and gangrene of the scrotum, peritonitis, septicemia, and pyemia.

In one case serious complications were observed, namely, a deep abscess of the thigh, a pelvic abscess, and very extensive gangrene of the scrotum. The whole anterior half of the scrotum and part of the septum sloughed away, and for two weeks the temperature varied between 101° and 105° F. Three years later the patient was well; he had no inconvenience from

cicatricial contraction of the scrotum, although no plastic operation or skin-grafting had been done, showing that the loss of one half of the scrotum may not necessitate a plastic operation.

To extirpate the glands, the method recommended by Poelchen (Langenbeck's *Archiv. für klin. Chirurg.*), of first exposing the internal saphenous vein by a vertical incision and dissecting along this vessel, leaving it intact upon the fascia lata, is the most rational. The glands are in this way removed quickly and without endangering the femoral vessels. In conjunction with Dr. L. P. Pollmann I have had occasion to locate this vessel topographically. After determining the location of the femoral artery in the usual manner the internal saphenous vein is found exactly at the point of union of the external with the middle third of a straight line connecting the pubic spine with the point of intersection of Poupart's ligament with the femoral artery.—*L. T. Reismeyer, Philadelphia Medical News.*

TRANSFUSION OF SALINE SOLUTION FOR HEMORRHAGE IN A CASE OF CUT THROAT; RECOVERY.—M. K., aged thirty-two years, was admitted to the hospital on August 31st in a very collapsed condition; clothes saturated with blood. An incised wound was found in the neck, extending from just below the angle of the jaw on one side to a corresponding point on the other, and passing between the hyoid and thyroid cartilages, the wound being deepest in the middle. On separating the edges of the wound a hole, about the size of a sixpence was seen in the thyro-hyoid membrane, through which air was passing. The sheath of the carotid artery was laid bare, but not opened, on the right side. Arterial hemorrhage had ceased, but venous hemorrhage and general oozing still took place. All bleeding was arrested, the wound well washed with antiseptic lotion, and the opening in the thyro-hyoid membrane closed with catgut sutures. The wound was dressed with iodoform gauze and wood-wool tissue; the head, well flexed on the chest, was kept in this position by a triangular bandage, the two ends of which were passed in front of the shoulders and tied to the back. The patient was in a very collapsed condition; appeared almost bloodless; lips and conjunctivæ pallid; pulse very quick, feeble, and fluttering, and could best be felt at the wrist. An attack of syncope came on, but the patient rallied on injecting ether. In about ten minutes another attack came on, and her condition became so bad that transfusion was decided upon. A small cannula from an aspirating case was attached to about two feet of narrow india-rubber tubing with a small funnel at the other end. A

solution of common salt (about eighty grains to the pint of water previously boiled) was put into a jug, and kept at about 99° F. The median basilic vein was now cut down upon, a double ligature passed under it, and the vein opened between the ligatures. Air was now excluded from the apparatus by filling it with saline solution poured from the jug into the funnel, and the cannula then introduced into the vein. The funnel was kept about half full, and thus about fourteen ounces of the solution were allowed to run into the vein; this occupied about half an hour. At the end of this time her condition had considerably improved; lips and conjunctive slightly colored; pulse stronger and fuller, being readily felt at the wrist. She whispered she felt much better, and was quite comfortable. The cannula was removed, the two ligatures tied, and the skin united by a few horse-hair sutures. In half an hour after the operation she had a slight rigor, and vomited a little fluid containing a few blood clots. Temperature 101.6°. September 1st: The patient passed a good night, had slept well, had taken brandy, beef-tea, milk and Benger's food at intervals; no pain on swallowing. Temperature 100.2°; face still very blanched; wound dressed. In the evening she became noisy and delirious; temperature 99°. September 2d: Slept fairly well, delirious when awake; had taken large quantities of liquid nourishment; temperature 99°. Wound was dressed; fair amount of discharge. Temperature in evening 100.2°. It was now found that on admission the patient was suckling an infant, and on examination the condition of her right breast might account for some of her symptoms. This yielded to treatment, and on September 4th the temperature became normal; no delirium; general condition much improved; pulse good; no pain; wound dressed; discharge not excessive, and granulation taking place; wound in arm quite healed. September 12th: Improvement uninterrupted; wound healed except in middle, which still discharges a little, the edges of the skin being in almost perfect apposition. Is now taking fish diet. September 26th: Wound quite healed, leaving linear cicatrix. She is taking common diet, gets up daily, and says she feels quite well; has no pain on swallowing. She will be discharged in a few days. For the notes of the case I am indebted to Mr. J. Simcock, senior house surgeon.—*Dr. P. Tytler, London Lancet.*

**CONJUGATE DEVIATION OF THE EYES.**—Dr. Gee has put on record the case of a child in whom this symptom was a prominent one. The patient, aged six, had suffered from measles a year before admission. She had never been

well since, and about four months after the illness she lost her appetite, became apathetic, vomited every thing she took, complained of pain in the head, staggered when walking, and often fell down. She slept with her head drawn back. Nine months after the attack of measles she had three fits at intervals of a few days. In those attacks she struggled very much, foamed at the mouth, and became quite stiff. A squint came on immediately afterward, the eyes looking inward. After a few days they began to turn gradually upward, and she seemed to lose her sight. About the same time she lost the use of her limbs, and her mind failed. On admission she was dull and apathetic, taking no notice of things around her, but occasionally ejaculating "Don't," when touched. There was retraction of the head during sleep, and also while she was awake. Both eyes were turned upward. The right eye was also turned a little outward. There was constant vertical nystagmus, and the pupils were dilated equally. There was no ptosis, and the ophthalmoscope showed secondary neuritis. The scalp-veins were full, and became more engorged before death. Any palsy was certainly incomplete, as the fingers of both hands could be put into the mouth. There was no rigidity of the arms or legs; the knee-jerks were not obtained, and the sphincters were natural. Vomiting was frequent, the abdomen was retracted, the pulse regular, and the urine natural. She died six weeks after admission. The author remarks that, according to Nothnagel, "in a given case in which the signs point to the existence of a cerebral tumor, there are grounds for localizing it in the corpora quadrigemina, or in the region of the corpora quadrigemina, if the following symptoms be present: (a) an unsteady, reeling gait, especially if this appears as the first symptom; (b) associated with this gait, ophthalmoplegia existing in both eyes, but not quite symmetrically, or implicating the muscles in equal degree." It is evident that this case fulfilled the conditions. At the necropsy a soft, pulpy, gelatinous mass, of a yellow-pink color, was found to extend over the surface of the cerebellum above and behind the medulla, and some lobular offshoots of similar appearance involved the cortex of the cerebellum at the sides of the medulla and pons. Between the crura cerebri a large bleb-like sac, as large as a pigeon's egg and distended with fluid, bulged out, and this was tightly constricted in front by the optic commissure. The corpora quadrigemina were seen to be flattened and distended over a mass of gelatinous pink growth, which formed the anterior projecting extremity of a mass of similar growth filling the whole of the cerebellum, the cortical layers of which



acted as a cyst wall and floated over the growth as if it were fluid. The floor of the fourth ventricle was also involved in the growth, and there was an isolated nodule in the anterior part of each lateral ventricle over the corpus striatum, that on the left side being the larger. Although the growth was too extensive to afford much information in regard to exact localization, the case is a very instructive one with reference to the statement of Nothnagel which Dr. Gee has quoted.—*Ibid.*

**A CASE OF PLACENTA PREVIA.**—Ellen H., aged forty-one years, the wife of a gardener, was taken in labor with her fifth child about 1 A. M. on September 9, 1890. She had suffered considerably during the last two months of pregnancy from a severe pain in the side, but only once during the whole period of uterogestation was there any appearance of hemorrhage, and that very slight, about the termination of the fifth month, for which she did not seek medical advice. Pregnancy had advanced to within a week or so of full term when labor commenced. I was summoned to the case at 5:30 A. M., and then found that the pains, although fairly regular since 1 A. M., had not been strong enough to warrant the woman in charge (according to her idea) in sending for me; but, fortunately for the patient, advice was then sought. Upon arrival I was informed that the patient had been losing blood in large quantities since 1 o'clock. She was blanched and almost pulseless, with cold, clammy perspiration, and the usual symptoms of impending death. On making a vaginal examination the os was found dilated to about the size of a crown piece. The examining finger passed through an enormous amount of blood-clot, which appeared to almost entirely fill the cavity of the lower or cervical zone of the uterus. Beyond this the placenta could be plainly made out, and occupied a direct central position. It was impossible to diagnose the fetal presentation. Under such circumstances there was only one course to adopt; that is, to perform version and deliver without further delay. After administering a stimulant, some little difficulty was experienced in passing the hand past the placenta, but eventually a foot was brought down and secured by a loop of tape, the delivery being then accomplished with comparative ease. The placenta came away within a few minutes, and good uterine contraction was insured by the administration of a full dose of the liquid extract of ergot. The patient made a good though a somewhat protracted recovery.

This case is instructive as illustrating the fallacious theory that the hemorrhage in cases

of placenta previa is most severe during a pain. Doubtless clots of coagulated blood are forced from the lower or cervical zone of the uterus and expelled externally during a pain; but these clots have been slowly forming from blood effused from the open uterine sinuses during the interval of pain, the tendency of uterine contraction in cases of placenta previa being, as in all other cases, conducive to the arrest of uterine hemorrhage.—*Dr. E. A. Piggott, Ibid.*

#### CONGENITAL HEPATIZATION OF THE LUNGS.

A poor woman living in my neighborhood was rather suddenly delivered of a child, and was attended to by a friend who tied and cut the cord pending the arrival of the midwife. The latter washed and dressed the infant about an hour after its birth. It died ten hours later, and was seen by me within two or three hours after its death. The friends asserted that the midwife had bandaged the child too tightly, and they ascribed its death to this cause. The child was an apparently healthy and well-nourished boy. There was some lividity of the lips, but no other appearances suggesting asphyxia or convulsions. There were no bruises or signs of injury. It was impossible that the child could have been overlaid, as death took place in the afternoon, and the mother was about to give it a teaspoonful of gruel when she noticed it breathing its last.

A *post-mortem* examination was allowed. I found marked venous congestion of the cerebral membranes, the longitudinal sinus especially being full of dark fluid blood. On opening the cavity of the chest the thymus was seen to be of a light red color, and well developed; the heart was fully exposed to view; the lungs were of a dark red, and lying well back in the cavity of the thorax. The auricles were full of dark fluid blood; the ventricles were contracted and empty, the surface vessels being distended. Both lungs floated in water, the left just below the surface, and the right at a lower level. On examining the lobes separately it was found that the two lower lobes of the right lung were hepatized and sank in water, as also a section from the lower lobe of the left lung. The other organs were apparently in a healthy condition. It was clear that tight bandaging could not have had any thing to do with the child's death. Theoretically, I suppose, such a cause is possible, but I have been unable to find any record of such a case.—*Dr. W. F. Grant, Ibid.*

**CHRONIC FIBRINOUS PHARYNGITIS.**—A somewhat rare case of pharyngitis, occurring in a medical man, is reported by Dr. Onodi. The patient was about thirty years of age, and had

first observed that his sputa contained false membrane as long ago as the end of 1888. At that time he experienced some difficulty in swallowing, and suffered from pains which appeared to arise from behind the soft palate. Since that time he observed on the posterior wall of the pharynx the development and separation of false membranes, which took place at intervals of a few days. Occasionally the visible part of the posterior walls of the pharynx remained quite free for three weeks at a time; but at such periods he experienced pain which radiated toward the ear, his own diagnosis; which appeared to Dr. Onodi to be correct, being that the fibrinous inflammation was spreading upward in the naso-pharyngeal space. During the present year the affection has undergone some improvement, but the patient has all along suffered from considerable pain in the ear, headache, and depression of spirits, with occasional attacks of epistaxis. The nose itself has been free from membranes. The sputum, when microscopically examined, showed that the pseudo-membranes were of a croupous character, being composed of a fibrinous network, and containing micrococci. The only treatment that appeared to be of any use was insufflation with the sozoiodolate of zinc and morphia.—*Ibid.*

**THE INFLUENCE OF ENEMATA AND CERTAIN REMEDIES ON THE COMPOSITION AND QUANTITY OF THE BILE.**—Dr. A. Leventon (*Les Nouveaux Remèdes*) has experimented on a dog with a permanent biliary fistula. He has determined that enemata of warm or cold water have no action on the quantity or composition of the bile.

Gamboge in small doses causes inactivity. In large doses it diminishes the quantity of the bile. In the absence of bile from the intestinal tract the purgative action of gamboge is reduced.

Jalap, or its active constituent, jalapin, or convolvulin, are without influence on the bile. Jalap and convolvulin lose their purgative power when the bile is absent from the intestine. This is not the case with aloes and aloin or jalapin.

Aloes and aloin are not to be considered as cholagogues. This also applies, according to the author, to podophyllotoxin.

**RUPTURE OF THE STOMACH.**—Dr. Key-Aberg publishes in a Scandinavian medical journal an account of a case in which the stomach of a patient seemed to have been ruptured from the use of a stomach-pump. The patient was a man who had taken fifteen grains of opium with the object of committing suicide,

and who had not been brought to hospital until three hours had elapsed. Under these circumstances the stomach was washed out somewhat hastily several times; each time it was remarked that only a portion of the water that had been injected returned. The patient died three hours after admission. At the necropsy it was found that the small curvature of the stomach had sustained several longitudinal ruptures, which, however, were confined to the mucous coat. The author was induced by this observation to make some experiments on dead bodies, which showed that an injection of three or four quarts of water into the stomach under a pressure of about ten inches of water produced similar injuries, and that these gradually increased and ultimately became complete ruptures through the whole of the coats of the organ.—*London Lancet.*

**PHENOCOLL HYDROCHLORATE.**—In Notes on New Remedies for August, 1891, Dr. Isaac Ott publishes the following summary of his experiments made with hydrochlorate of phenocoll:

Upon frogs it produces a general paralysis, due to an action upon the cerebro-spinal axis.

Upon rabbits it produces a cyanotic condition of the ears, and reduces the force and frequency of the heart.

It kills through an action upon the center of respiration.

Upon the vascular tension the tendency is to diminish it.

Upon the temperature its action is one of reduction.

Its effect upon the temperature seems to be of short duration.

These experimental facts explain its utility in rheumatic pains and pyrexia.

It is evidently a drug of considerable power, and rapid in its activity. This drug seems to be worthy of a fair trial at the hands of the profession.—*Therapeutic Gazette.*

**THE ACTIVE PRINCIPLE OF WOOD ANEMONE.**—Dr. Dupuy, in *Les Nouveaux Remèdes*, has extracted, in the form of crystalline needles, a substance from the wood anemone which seems to possess extremely energetic action on the economy. In large doses its toxicity is very marked, producing trembling, hebetude, and sanguinolent diarrhea, and death from paralysis. From the therapeutic point of view, this drug, which he calls "anemone," is said to act with great efficiency in catarrh and chronic bronchitis, and especially as a calmative of convulsive cough and in whooping cough. It is also said to possess emmenagogic properties.



# The American Practitioner and News

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H. A. COTTELL, M. D., } - - - Editors.

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## IS PEDIATRICS A SPECIALTY?

The Journal of the American Medical Association of October 17th devotes a lengthy editorial to the discussion of this question, in answer to a correspondent, doubtless some old-fashioned doctor, who thinks it "smacks of affectation" to give a name to a National Association which can not be found in Dunglison or the later editions of Worcester and Webster."

The article was evidently written by a heavily-loaded pediatricist, who makes the subject somewhat too bibliographical for the common reader; but the writer puts forth some paragraphs of practical worth, which we quote and commend to the general practitioner, be he old-fashioned or new-fashioned in his methods of practice:

Like "cold" in later life, "teething," since the days of Hippocrates, has been credited with the causation of most of the diseases of infancy, and, like "cold," "teething" is being gradually pushed into the background. At the close of the Newport meeting of the Association, the chairman of the section of Diseases of Children remarked that he was delighted to say that never once during the session had he heard of "teething" or "worms." The ignorance which has ascribed such importance to "teething" and "worms" has assisted materially in maintaining the mortality-rate of infancy. Better diagnosis, with correspondingly better treatment, is taking the place of "teething" and "worms." It may be truthfully said that the number of cases of "teething" and "worms" occurring in the practice of a given physician is an exact index of his inability to diagnosticate the diseases of infancy and childhood.

If children were little men and women there would not be a specialty of pediatrics. But they are not. They have their anatomical and physiological peculiarities, their own hygiene, their own pathology, their own diseases, their own therapeutics. Special methods of diagnosis are necessary in infancy, and the physiognomy of disease here is peculiar. Prognosis does not follow the same lines as in the adult. The great problems of nutrition here find their peculiar field, and upon their proper solution depends the welfare of the future man or woman. These grounds seem sufficient to entitle pediatrics to the position of a specialty in medicine. A few examples illustrating these statements might be mentioned, the anatomical peculiarities of the naso-pharynx in the infant, particularly the small size of this space. This diminution in size makes coryza, so insignificant in the adult, often a matter of great importance to the infant, not infrequently leading indirectly to serious disturbance of nutrition. Enlargement of the bronchial glands is particularly a disease of childhood. Empyema is much commoner in children than in adults, and more insidious in its onset, frequently existing for months before detection. Rickets and allied forms of malnutrition are often overlooked in the child until their greatest damage has been done. Many of the neuroses of malnutrition in the infant are not recognized as such. The diseases of the mouth are most frequently met in childhood, and have quite a different significance from the same diseases in the adult. The great group of diseases of the alimentary canal differ so widely from similar diseases in the adult that their successful handling must be conducted on an entirely different basis from their treatment in adult life. The single subject of infant feeding, particularly artificial feeding, is so beset with difficulties that one might almost say that it alone is worthy of being raised to the dignity of a specialty.

Pediatrics certainly is not a specialty in the sense ordinarily employed, which gives this title to the special study of the diseases of a single organ or system. And yet, like these branches of medicine, it requires special training on the part of its practitioners, and has been most advanced by those who have given their time and study to it as a specialty. It is in one sense the least narrowing of all specialties, because its workers must keep always before them the future man. "The child is father to the man," was the title of the address of the President of the Children's Section of the British Medical Association at its last meeting; and, while he strove hard to deny that pediatrics is a specialty, his address belied his words, as he showed most conclusively that the proper handling of the child had much to do with the success with which the future adult should avoid or bear the diseases to which he might be exposed.

Pediatrics is the specialty which the general practitioner most needs, and it is painfully apparent to all that the teaching of this subject is sadly neglected in most medical schools.

These paragraphs have in them the ring of true metal. While they do not give any good reason for making pediatrics a specialty to be monopolized by a distinctive class of physicians, they show that the subject is one to which the general practitioner must give special study if he would not have the best part of his practice taken away from him.

### Notes and Queries.

FROM YOUTH TO AGE.—An exceedingly interesting memoir by Mr. C. S. Minot, entitled "Senescence and Rejuvenation," appears in a recent number of the *Journal of Physiology*. Mr. Minot's experiments were conducted upon guinea-pigs, amounting in number to several hundreds, and were extended over several years, and the problem he set himself to solve was to determine the changes which occur in the passage from youth to old age, and to explain the essential nature and the real cause of that gradual loss of the functional powers of the organism which lead first to senescence and ultimately to death. He selected guinea-pigs because, among other advantages, they are inexpensive to purchase and keep, bear confinement well, and are but little liable to disease. They were kept during the summer months in spacious pens in the country, and in winter in large boxes in warm, well-lighted and ventilated rooms. To measure the growth the weights were taken of the growing and adult individuals, the weight being, in his opinion, the only available measure for the whole animal and the only one permitting comparison between different animals. Each animal was accordingly weighed every day from birth up to the fortieth day, then every fifth day up to 215 days, and after this period every thirtieth day. In regard to the conditions at birth, it was found that the number of young in each litter varied from one to eight, but litters of one, two, three, and four were by far the most common, and he thinks that two may be regarded as the normal number which corresponds to the number of teats. The number of young tends to increase with the number of previous pregnancies, and is greater also in warm than in cold weather. In regard to sex, of 1,000 guinea-pigs born, 456 are females and 544 males, but he gives reasons for thinking this is a wider difference than really exists. In the spring and summer there is a relatively greater tendency to the production of females. The average weight of a guinea-pig at birth is about seventy grams, and Mr. Minot points out the remarkable circumstance that a growing guinea-pig may bear young without impeding

its own growth. The determination of the period of puberty is not easy to arrive at, but probably occurs about the fourth or fifth month of age. The average duration of gestation is sixty-seven days, but is somewhat less when the litter happens to be large. From a series of measurements, which embrace a very large number of observations, affording abundant evidence how laboriously Mr. Minot must have worked, he constructs graphic curves, which show that at birth the male is slightly heavier than the female; but the female immediately makes a marked gain, owing to its having a less post-natal retardation than usual, and it is not until the twenty-ninth day that the male, weighing 203.8 grams, catches up to the female, weighing 203.7. After the first month to the end of the first year the males at every age are, on the average, heavier than the females. Continuing these observations through the second year, he finds that when the two sexes have attained adult life the female surpasses the male. Mr. Minot points out that the curve of growth in guinea-pigs of both sexes differs to a marked extent from the curve of human growth. This curve, as determined by H. P. Bowditch, always exhibits a great fluctuation associated with puberty, as there is a pre-pubertal retardation, both modifications being most frequent in females. He thinks that the diminution in rate of growth which occurs in guinea-pigs of both sexes, beginning about the end of the fourth month, and which is greater in amount and longer in duration in the female, corresponds to the post-pubertal retardation of the human species, and it would clearly be interesting to determine whether such double pubertal fluctuation of growth occurs in all mammals.

Mr. Minot's observations also afford extensive materials for the study of individual variations. Each animal appears to strive to reach a particular size; but while some grow for a time too rapidly, other grow for a time too slowly; but the tables show, and this is supported by Pagliani's observation, that if an individual grows for a period excessively quickly, there immediately follows a period of slower growth, and *vice versa*. Those that remain behind for a time, if they continue in



good health, make up the loss soon after. Hence, he has found that to permanently dwarf a guinea-pig requires an astonishingly prolonged interference; a young guinea-pig may lose one third of its weight from a severe intestinal catarrh, and yet make it up subsequently. An interesting question also arises in regard to the influence of gestation upon growth. It has been usual among physiologists to accept the view that the functions of nutrition and reproduction are opposed to each other, because reproduction makes such a demand upon the parent for material; but this proceeds on the assumption that before reproduction the organism must be growing nearly or quite up to the maximum of its assimilative power. Minot's and Edelfsen's and Hensen's experiments, however, all show that this is an unwarrantable assumption, and that in point of fact female guinea-pigs grow about the same, whether they have young or not during their own growing period. Immediately after delivery, however, there is a great and very rapid loss of weight, which continues for several days. The diminution proceeds at a slower rate for about three weeks, after which the recovery of weight begins. Lastly, the process of growing old, Mr. Minot shows, is a very complex affair. One of the most characteristic features is the loss of the power of growth, and he calls attention to the misapplication that has been made of the expression "rate of increase," owing to the fact that the actual absolute increments of equal successive periods have been taken as the index, whereas, as he insists, if the absolute increments are constant, the rate of growth must necessarily diminish. If, for example, an animal adds, say, ten grams weekly to its weight, its rate of increase is clearly diminishing, for were it equal it would add ten grams and the tenth of ten grams in that period, and so on in compound proportion. On this basis M. Minot arrives at the conclusion that in guinea-pigs there is a progressive loss in the power of growth, beginning almost immediately after birth, and raises the question whether in all living beings there is not a certain impulse given at the time of impregnation which gradually fades out, and when exhausted ends in death.—*London Lancet*.

NERVOUS SEQUELÆ OF INFLUENZA.—A few months ago Dr. Archibald Church, of Chicago, read a paper on this subject before the Chicago Medical Society. After alluding to the difficulty experienced in deciding in any given case whether the nervous prostration or other condition which followed influenza was really a consequence of it, and in many cases where a neurasthenic condition was met with, whether the patient or his friends were correct in ascribing it to a preceding attack of influenza, of which the evidence was scanty, he pointed out that a few representative German, French, English, and American publications furnish reports of as many as four hundred cases, showing the intimate neurotic characters of the epidemic. He has also examined the official mortality records of Chicago for some years past. In the years 1888 and 1889 the proportion of deaths from alleged nervous diseases to the number of deaths from all causes was very nearly 16 per cent. This ratio was maintained in 1890, and during the first four months of 1891, when there was a great increase in the number of deaths from chest conditions, showing that the nervous system was as actively and fatally affected as the chest in the proportion which it usually bears to the general death-rate. Thus in March and April, 1891, when the death-rate rose to 34 per 1,000, the deaths from nervous diseases more than doubled their average in previous years. The great increase is found mainly under the items "meningitis" and "convulsions." With regard to the occurrence of mental disturbance after influenza, Dr. Church found that, out of 874 admissions into three State hospitals for the insane during the eighteen months preceding May 1, 1891, forty five were cases in which influenza was the alleged determining cause of the mental disease, although in most of the cases other causes were at work. An examination of lunacy records also of the Cook County Court showed, in comparison with similar periods in the year 1889, an increase in the number of admissions following the epidemic of 1890, and again during the prevalence of the disease in the current year up to May 1st. The conclusions arrived at were as follows:

That there is a distinct nervous variety of

influenza; that the poison of influenza has a marked action upon the nervous system, which may give rise to immediate acute manifestations or to remote and persistent conditions, and that in the predisposed the disease is competent to cause marked excitement or great depression of the nervous functions.

**THE MORAL ELEMENT IN THE PROFESSION.**  
The great work in which the character and duties of the medical man are discussed is that of Percival (*Medical Ethics, or a Code of Institutes and Precepts adapted to the Professional Conduct of Physicians and Surgeons*), and students and practitioners would do well to possess themselves of it and to cultivate the sentiments and the principles which it so well expounds. But there are other ways of studying the great ethics of our profession. One of the best of these is in the study of medical biography. The life history of a man like Dr. Fothergill, and his account of his friend Dr. Alexander Russell, read before the College of Physicians in 1769, is an inspiration to all that is high and unselfish in medical life, and teaches us how wide and yet how minute are the sympathies of true medical men. Fothergill's description of Russell, who settled in Aleppo and acquired there an enormous fame, may well be reproduced, not only as a piece of rare medical eloquence, but as a masterly portrait of medical character: "The Pacha himself became acquainted with the merit of our deceased friend, consulted him, called him his friend, found him upright, sensible, and sincere; as a man, polite without flattery; decent, but not servile; as a Christian, true to his principles; disinterested and generous as a Briton, and in point of skill as a physician superior to every one. A natural, even cool and consistent temper, a freedom of behavior as remote from confidence as from constraint, improved by reading and conversation; a mind imbued with just reverence to God, and impressed with a sense of the duty we owe; an understanding fraught with the principles of the profession to which he had been early devoted (the practice of physic), happily blended with great benevolence, was a character seldom to be met with in the Asiatic regions. This, however, was the character of our colleague."

Such characters may seem rare in every age, but they are perhaps less so than we imagine. At any rate, they constitute the type of what all medical men should be. We are plied every week with fine questions of professional behavior and character; sometimes arising in the mind of the physician himself, sometimes emanating from a rival practitioner or a critical patient. Such questions are most times honestly enough conceived, and they would soon be generously disposed of in the lights of such a portrait as that depicted by Fothergill. There are such men in every neighborhood, "upright, sensible, sincere." The study of such characters in medical history, we repeat, is as important to every practitioner who would uphold the dignity of his profession as the study of anatomy or therapeutics. The moral element of the profession is one source of its strength. It has always been on the side of virtue and of temperance. There may have been individual exceptions, but the profession has not been involved. It has not recognized the voice of the practitioner who has seemed to sanction vice or to lessen the abhorrence of it. Vice in all its forms is easy enough without assistance or encouragement from the profession which sees so much of its results. Apart from the direct bearing of medical considerations in questions of vice and virtue, the medical man himself is a factor in the formation of public opinion. Those who would shut a medical man up in a sick-room, and deny him an influence in social and public questions, injure the community. But to intervene efficiently in such questions he must intervene quietly and impartially, as a student away from the strife of parties and of sects. His influence must be rather that of an expert than a mere politician, of one who sees deeper into miseries and maladies than others do, and who can not be satisfied with any thing but true and proved remedies.—*London Lancet*.

**THE PUNISHMENT FOR DRUNKENNESS IN MEDICAL MEN IN THE UNITED STATES.**—The offense of drunkenness in a medical man is a very serious one. In olden times, if we are to believe the story books, it was by no means uncommon for men of high standing to drink deeply, and sometimes grievously to com-



mit themselves before their patients. It may well be that the general tone of morals on this subject was so low that more forbearance was shown the practitioner than is extended to him now for a similar fault. Be that as it may, there is a very great difference in the severity with which the offense is regarded, and, happily, in the rarity with which it occurs. A medical man who so plays with alcohol as to be, we will not say incapable of professional duty, but on the verge of incapacity, is generally now soon detected. In many cases he himself perceives his danger, and has the good sense to absolutely part company with his enemy. If not, the process of degradation and misfortune is rapid, and, without incurring legal process or disability, he loses practice and credit. This sure fate of the medical victims of intemperance is not quick enough for the United States, where some unusual legislation has lately taken place. In the State of Georgia, according to the New York Medical Record, a statute has been passed by the legislature which disqualifies for further practice any medical man who has once been convicted of drunkenness, and imposes a heavy penalty on him if he attempts to practice again. In New York there is a statute to the same effect, but more mild and discriminating in its spirit. It runs as follows: "A physician or surgeon, or person practicing as such, who, being in a state of intoxication, administers any poison, drug, or medicine, or does any other act as a physician or surgeon to another person, by which the life of the latter is endangered or his health is seriously affected, is guilty of a misdemeanor." Another section declares that if, under like circumstances, the patient's death results, the physician is guilty of manslaughter. We can not defend the severity of the Georgian law, and our contemporary regards it as a deliberate insult to the practitioners of the State. A vice that has been so common, and withal so leniently regarded by mankind, is surely not to be treated in a first conviction so severely. The case is different where the vice is persisted in. Georgia is a State where there is almost an equal number of black and white citizens. It may either be that the vice is more common, or the belief in severe measures greater, than in other popula-

tions. In any case, while drunkenness is a vice to be discouraged and even punished by those that exercise discipline in the great profession of medicine, it is indefensible in a legislature for one conviction to deprive a man of his professional status. The proper remedy for a State to adopt would be to reduce the number of competing medical schools which hold loosely the gates of the profession, and which let in those who are unworthy, and out of this reduced number to constitute a board who should have power to judge of the efficiency of schools and to exercise discipline over all admitted to the profession. A medical man who frequently gets drunk brings his profession into discredit, and his profession should have the right of judging him.—*Ibid.*

A CASE OF CEREBELLAR TUMOR.—M. R., aged four years, was admitted into the Lancaster Infirmary three months ago, the complaint being headache, vomiting, and loss of use of the lower limbs. Her father is healthy, and her mother, who possesses a blue and a gray iris, suffers from occasional convulsive attacks, especially during pregnancy and childbirth. Three of the children died of "fits," and there are three healthy. About nineteen months ago the patient fell into the canal, the cause of this accident being supposed to be due to a "fit." Nine months ago she had two "fits," which were accompanied with bleeding at the mouth, and at this time it was noticed she began to lose the power of walking, which gradually got worse. The temperature is normal. She is well nourished and muscular, and has a peculiar heavy, sheepish, and expressionless aspect. As regards the alimentary system, it may be noted that the upper incisor teeth are small and placed apart, the canines of the same row appearing as small, triangular bodies projecting through the gums. The lower row of front teeth are small, crowded together, and free from notches. Nervous system: The sensations are much impaired. No discomfort is experienced when a hot test-tube is placed in contact with the skin of the legs and arms, and she bears it well on the cheek. Running a pin a moderate depth into the skin of the upper and lower limbs, or the tip of the nose or forehead, is per-

formed without the patient's wincing, or giving other evidence of pain or sensation. But when the pin is thrust into the skin in the same situation so as to cause bleeding, the patient says she feels it, and makes a tolerably good attempt to localize the seat of pain. Pinching the muscles of the calves of the legs causes pain. The pupils are natural, and react to light. The senses of taste and smell are affected. She drinks vinegar like a hypnotized person, and the vapor of ammonia, when applied to the nostrils, is borne well. Touching the conjunctiva causes reflex closure of the eyelids, but apparently with little discomfort. The knee-jerk, if any thing, is slightly pronounced. She sits up in bed with the body bent forward and the knees flexed, but if pushed to one side she falls backward and to the right or left, and she can just manage, by taking hold of both sides of her cot, especially when requested in a commanding tone of voice, to stand up in bed, though she does this in a very oscillating manner. Closing the eyes affects neither sitting nor standing. She can turn over the leaves of a book and touch the tip of her nose without special effort. With the exception of coldness of the lower limbs, there are now no vaso-motor or trophic changes to be detected. Sleep is often prolonged and deep, and her intelligence is good. She stands (with assistance) with the legs separated, feet everted, knee joints extended, and the spine bent forward. When assisted to walk, the lower limbs, being abducted and rotated outward, are thrown forward and outward without flexion of the knees, and the plantar aspects of the feet, rather than the heels, come down to the ground with a thud. If any comment on her progress while in the infirmary is needed, it is that the attacks of headache diminished in frequency and severity, and the vomiting ceased, while the general anesthesia and loss of power of the lower limbs gradually increased until the time of her death (April 30th), two hours before which she was unconscious; but previously to the onset of unconsciousness there was nothing whatever to excite suspicion of the sudden termination of the illness. At the *post-mortem* examination the lateral ventricles were found distended with fluid. Projecting from the under surface of the

cerebellum, and pressing on the medulla oblongata, was a rounded, smooth-surfaced, and hardish (in comparison with the brain substance) tumor about the size of a walnut. Unfortunately I was unable to examine the tumor microscopically, as it had been hopelessly disintegrated by a fluid into which it had been erroneously placed with the intention of hardening.—*T. D. Poole, M. B., Ibid.*

THE HOSPICE OF THE GREAT ST. BERNARD. This asylum for the Alpine wayfarer (7,609 feet above the sea level) is said to have been founded A. D. 962 by St. Bernard of Menthon, while, according to some authorities, it rose a century earlier, under Charlemagne. Neither saint nor emperor is likely to make good his claim, as the archives of the hospice have been completely destroyed in two successive conflagrations. But, like other Christian institutions, it had undoubtedly a pagan predecessor. The Romans on the self-same spot built a temple to the Pennine Jove, and that, in turn, occupied the site of a still earlier shrine of prehistoric antiquity. The truth is, the Alpine passes were in common use from the remotest ages, the Christian world treading the same route which had been trodden by the Romans, who also availed themselves of the track made by the aborigines. At its highest point the tutelary deity had his place of worship, and this was served by the local priesthood, who rendered assistance to the distressed or ailing traveler and received votive tributes in return for its good offices. The existence of a temple of Jupiter on the spot, with its staff of priests, is well known, and the relics that have turned up near it attest its uses to have been similar to those of the present hospice. A discovery of importance has just been made in its vicinity—a bronze statue in excellent preservation of Jupiter himself. Its artistic value is very great, its height forty centimeters. At the same time other treasure trove was brought to the surface, including a number of medals and a statuette of a lion measuring sixteen centimeters, also of fine workmanship. These are now the property of the monks, and will attract to the hospice a public more able to keep them in funds than the proper recipients of their kind-



ness. Sad to relate, the revenues of the monastery, heavily drawn upon by the travelers (from 16,000 to 20,000 annually) who throw themselves on its bounty, are diminishing, the contributions left by these comfortably accommodated guests being miserably below what, in the majority of cases, they can afford. The heroism of the monks should be remembered by the well-to-do holiday visitor. They begin their career at the age of eighteen or nineteen. After fifteen years' service the severe climate has made old men of them. For eight or nine months out of the twelve they see none but the poorest wayfarers, when the cold is intense, the snow lying deep, the danger from storms incessant and fearful. Their sole companions are the dogs, whose keen scent has guided them to the snow wreath from under which the buried traveler has so often been rescued and brought to life—dogs like that noble fellow "Barry," who saved forty men in his time, and who now, carefully stuffed, adorns the museum at Berne. The poet laureate of the monks, we are proud to say, was a medical man, the late Dr. David Macbeth Moir, of Musselburgh (the "Delta" of Blackwood), whose sonnet beginning "Where these rude rocks on Bernard's summit nod," is one of the finest in our language, and, translated into Ovidian elegiacs by Dr. Samuel Butler, Bishop of Lichfield, forms the gem of the "*Arundines Campi*."—*Ibid.*

THE FATE OF SYPHILITIC CHILDREN,—Dr. C. Hochsinger has been able to trace the fate of two hundred and sixty-five children who suffered from congenital syphilis. More than a third of all these children suffered from recurrence of syphilitic symptoms, more than 70 per cent of these recurrences coming on during the first year. He was able to follow the fate of sixty-three of the children for more than four, and some of them for twenty years. The anti-syphilitic treatment of all was commenced between the ages of two days and fifteen months, and was exclusively mercurial. He divides these sixty-three cases into three series: (1) Ten of them suffered from renewed symptoms after their fourth year, one of them when he was twelve years old. (2) Thirteen cases, which at the end of the period of observation were from

four to twenty years old, were in every respect normal and well developed. (3) In the other twenty-five cases no symptoms of syphilis were ultimately manifested, but some of them exhibited distinct signs of former disease, while others showed morbid alterations of a more general character, or such as were difficult to define. None of the cases presented a direct connection between syphilis and scrofulosis. The recurrences were, during the first three years of life, almost all of a condylomatous character; during the fourth and fifth years there were condylomata with gummous ulcerations or exostosis, and later on the manifestations were exclusively of a gummatous nature. Dr. Hochsinger observed laryngeal syphilis frequently in children from two to four years old. Two children three years old suffered from hydrocephalus during fresh attacks of an exanthematous nature. Destructive gummatous processes of a grave nature were only once observed in a child eight years old, which came under treatment relatively late, when it was fifteen months old, and the treatment was not properly adhered to. Dr. Hochsinger concludes that the prognosis of congenital syphilis is not unfavorable, but depends essentially on the treatment. The sooner mercurial treatment is commenced, and the more carefully it is persevered in, the more certainty is there, he thinks, of a definite cure without recurrences, and the more insignificant are the visible signs of the disease in later life. To arrive at this result, it is necessary to continue treatment at least some weeks after the disappearance of all symptoms. In the ten cases of the first series, where there were recurrences, this precaution had not been observed. *Ibid.*

NEO MALTHUSIANISM.—It is not easy to be really angry with a man for attaching too great importance to a doctrine which he holds in opposition to recognized authority and the "weight of opinion," even when one is convinced that the *doctrinaire* is mistaken and the doctrine mischievous, and for this reason a certain tolerance is extended to those uncompanionable people who insist on discussing social questions by the light of the narrow theory which is associated with the name of

Malthus, even by such as have no sort of belief in their doctrine and no great respect for their insight. But to establish a title to this toleration a man must be free from the suspicion of unworthy motive, and obviously and transparently fanatical. No judicious espousal of a theory which can be turned to account for business purposes will satisfy the condition. If a bore inflicts himself upon us for *our* good, the sense of gratitude may deaden our sense of injury; but if he gives us reason to suppose that his own advantage enters into his purposes in paying us attention, he will be judged—and rightly judged—by no lenient rule. Such considerations will lead most, perhaps all, people who do not happen to be fervent sympathizers with Mr. H. S. Young, M. A., to look with considerable composure upon the proceedings at Bow Street on Friday week, which resulted in the imposition of a fine of £10 and 10 guineas costs in the case of one summons, and £10 and 2s. cost in respect of three other summonses, for having circulated alleged obscene literature. Mr. Young, who possesses an Oxford degree and has been called to the bar, may, in spite of his opportunities, be a person incapable of appreciating the enormity of inflicting his pamphlet concerning the limitation of families upon all and sundry whom he chooses to select for attack. In that case he will probably not be enlightened even by such a demonstration of the sound view as was afforded by Mr. Lushington's sentence the other day. But it will probably curb even him, and that is a point of some importance. We do not wish to asperse his intentions. It is very likely that he honestly holds the views which he disseminates. Persons more distinguished than he have held equally eccentric views upon the same momentous subject. Nor would we even complain of his attempting to earn a guinea here and there by a correspondence that he thinks it desirable to carry on under cover of an assumed name. These are matters that concern him alone, and do not demand any criticism at our hands. But when he springs his doctrine upon unwary people and attaches the penalty of his missive to the formality of an announcement in the daily paper of a birth, we can not but feel glad that there is a law which can reach and

check him. Nor can we doubt that the facilities of the penny post, which he has so abused, are properly denied to him.—*Ibid.*

**DELIRIUM IN PNEUMONIA.**—A recent observation by Castelain (*Archives Médicales Belges*) seems worthy of some attention. His observations relate to the delirium which commences just before the crisis and lasts for several days thereafter. While not ignoring general conditions, alcoholism, debility, the condition of the heart and circulation, of the brain and nervous system, of the kidneys and other organs, he has directed especial attention to the condition in the lungs. During the period of complete hepatization the lung is impermeable to air; the exudation is abundant, but coagulated and compact; the alveoli are filled with fibrine and young cells mixed with red corpuscles. Next comes the period of liquefaction, and absorption of the great mass of the liquified products.

Castelain's observations at this period of the disease lead him to the following conclusions:

1. The appearance of the delirium coincides with the beginning of the period of liquefaction, and is its first indication.

2. The curve of the delirium is parallel with the curve of liquefaction and of the abundance of the exudation. The delirium increases during and after defervescence of the fever, in proportion as the râles become more moist and more numerous, and as they extend over a greater area. The delirium diminishes and disappears, little by little, in proportion as the fine râles become less numerous, occupy a less extensive area, and give place to coarser râles and finally to dry râles.

3. The duration of the delirium is in relation with that of the liquefaction of the great mass of the exudate. If the latter is liquefied rapidly and disappears immediately from the alveoli, the delirium is of short duration, but is more violent than when resolution occurs slowly or in different regions in succession. Delirium may even be entirely absent when liquefaction is slow or the exudation slight.—*Jour. Amer. Medical Association.*

**DR. WEIR MITCHELL ON SPECIALISM IN MEDICINE.**—In the course of his admirable



and eloquent presidential address at the recent Congress of American Physicians and Surgeons, upon the History of Instrumental Precision in medicine (the full text of which is published in the October number of the University Medical Magazine, Philadelphia), Dr. Weir Mitchell made some thoughtful remarks on the inter-relations of specialism and general practice. He said:

"I could easily show you by added proof what we all lose by not keeping close touch of one another's gains. The criticism of the specialists is that the general practitioner does not early enough ask his help in difficult cases. The largely educated and generally occupied physician feels (and you will pardon your critic) that limitation of attention to organs—the eye, the ear, the womb—is apt to lead to a too entire trust in local means, and to neglect of those patient methods which ought more frequently to call for the added counsel of the general physician. For nowadays the patient often resorts at once to the specialist, and it is the ophthalmologist who sees, or who ought to see, the first signs of specific disorder, of spinal troubles, of asthenic states. Whether justly or not, the thoughtful general practitioner is to-day distinctively of opinion that the absence of grave mortality after operations which once were so fatal has created a vast temptation for the younger surgeons.

"This critic believes—is he right, is he wrong?—that too often and too promptly the gynecologist resorts to but one drug, and that steel in the trenchant form, when perhaps the state of the body makes operations doubtful as to their remote usefulness, or he condemns to sexual neutrality some who, under patient medical treatment with careful inattention (*sic*) to the sexual organs, might have had preserved for them the inestimable possibilities of the wife and the mother. I once saw, almost by chance, with Marion Sims, a girl of eighteen, decreed, after purely surgical consultation, to lose her ovaries next day. I said that she ought to have a larger chance of medical treatment. Using a rather strong phrase, with energy characteristic of the man, he replied, 'I never murder sex without a pang. Let us give her a reprieve.' To-day she is a wholesome, happy wife and mother.

"And, too, there is, as I have hinted, the other side of the shield—the general practitioner who sees the beginnings of disease and does not correctly interpret them, or early enough ask counsel. He regards as rheumatic the neuralgias due to the faint beginnings of spinal disease. He treats headache or vertigo by general means, and allays them by drugs, when in an hour the physician of organs would tell him that it is feeble muscles, astigmatism, ear trouble, or nasal disease which is the parent of the malady."

**CEPHALOMETRY.**—Dr. Altukhoff, one of the anatomical prosectors in the University of Moscow, has published a paper with a number of elaborate diagrams illustrating the position of the various fissures and convolutions of the brain in men, women, and children as taken by Zernoff's cephalometer. This instrument consists of a horizontal brass circle surrounding the head and supporting two vertical graduated semi-circles, one longitudinal, the other transverse. The former is made to revolve so that a screw having a radial direction, which it carries, can be applied to any portion of the skull or of the brain after the skullcap has been removed. By means of this the latitude and longitude of any spot may be accurately defined, just as those of any geographical locality may be found on a school globe. Dr. Altukhoff expresses himself as well aware of the work that has been done in this direction by Broca, Giacomini, Turner, Cunningham, Hare, Horsely, Dana, Féré, Rüdinger, and others. His own paper is published in Russian, but the plates are tolerably intelligible without a knowledge of that language.—*London Lancet*.

**CONCENTRATED PREPARATIONS.**—Many years ago concentrated preparations were introduced by some of the largest and most reliable wholesale druggists, and they found a very ready acceptance with all who were called upon to dispense drugs. It was claimed for them that, by dilution with spirit, water, or syrup, preparations could be obtained which in no important respect differed from the tinctures, decoctions, infusions, or syrups of the British Phar-

macopœia. Their convenience, when space in the dispensary is limited, is of course obvious, and this alone would readily explain the favor with which they have been received. A correspondent from South Africa indicates another great advantage to medical men resident abroad, viz., the immense saving in package, freight, duty, etc., which results from being able to order drugs in a concentrated form and dilute them on delivery. On the other hand, he confesses that he has not been free from an uneasy feeling that the preparations might not be reliable in strength or quality, and he instances two which throw down a heavy and insoluble precipitate when diluted with rectified spirit, as directed, to form the respective B. P. tinctures; while a third when diluted gives a preparation which, though clear in appearance, is very unlike the corresponding Pharmacopœia tincture. His experience is, we believe, rather exceptional. Most of such preparations which we have examined have been made apparently with a due regard to the interests both of buyer and seller, and really contain the amount of active ingredients represented. Whether they travel well, is another matter, upon which we should be glad to receive information from medical men resident abroad.—*Ibid.*

DR. FRANK W. REILLY, of Chicago, has been appointed Secretary of the State Board of Health of Illinois, in the place of Dr. Rauch, resigned. Dr. Reilly was once a doctor, but of late has been a journalist, and brings to his position the advantages of "a trained pen," a well-balanced head, and broad grasp of things in general. As managing editor of the Chicago Daily News he has proved what a doctor can do in successfully running a great newspaper.

### SPECIAL NOTICES.

THE Phosphates of Iron, Soda, Lime, and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See this journal.)

R. W. ST. CLAIR, M. D., Brooklyn, N. Y., says: I have used S. H. Kennedy's Extract of Pinus Cana-

densis for two years in a large practice, and so far have never failed in reaching the most happy results. One case of nasal catarrh, that resisted the best treatment of some of our best practitioners, came to me. I began with the Pinus Canadensis, and am pleased to say that the cure is absolute. In two cases of diphtheria I used Pinus Canadensis, one ounce to one half pint of water, with the best results. The membræna peeled off and no new formed. In leucorrhea, gonorrhœa, gleet, etc., it is all that is needed. I know of nothing to take its place. I prescribe it many times daily. As a rule, I do not advocate injections into the womb, but I have in cases of endometritis used the Pinus Canadensis (Kennedy's always) with great satisfaction to myself and relief to my patients.

MESSRS. REED & CARRICK, NEW YORK:

*Gentlemen*—I have prescribed your Food for years, and I thought perfection had been reached, but your Lacto-Preparata has surely crowned your efforts with complete success. It can not be improved. I have been prescribing your preparations for years, and shall continue to do so as long as you keep up to the present standard. I have not been solicited to write this by any one, but when I find such preparations as Reed & Carrick's I feel it my duty to assist them in placing them before our brother doctors.

Yours truly, J. E. ANDERSON, M. D.  
LAKE SUTTER, CAL., May 25, 1891.

### GONORRHEA—

R S. H. Kennedy's Ext. Pinus  
Canadensis .....2 ounces;  
Glycerine .....1 ounce;  
Port Wine .....2 ounces;  
Hydrastia Sulph. ....4 ounces;  
Aquæ Destill .....2 ounces.

S. A. McMURRAY, M. D., Marion, Ohio, says: I used Aletris Cordial with very good results in the case of Mrs. X, aged 23. Since the birth of her child, five years ago, she has been in a very poor state of health. At the time I saw her she was very much reduced. She also, since the birth of her child, had suffered with dysmenorrhœa of a most severe type, the pain beginning three or four days before the appearance of the menstrual flow, and lasting until one or two days after, its appearance being so severe as to confine her to her bed. She was also very nervous, had not much appetite, and did not sleep well. I ordered one teaspoonful of Aletris Cordial, three times daily, beginning one week before the appearance of the menstrual flow, and continuing for two weeks, then to discontinue its use until a week before the next period. In conjunction she also took one teaspoonful of Celerina one hour after each meal, as I thought it would be beneficial on account of her nervous condition. I began to notice improvement in a short time, and at the next menstrual period there was little pain. From that time on there was marked improvement, until at the end of two months she was free from pain at the catamenial periods. The nervous phenomena improved, as did also her appetite, until she is now, according to statement made me yesterday, in better health than she has been for six years.

THE uncertain strength of Coca leaves make this drug very unreliable unless a preparation is used, which we know to be made from a good leaf. Robinson's Wine Coca is prepared by percolating assayed Coca Leaves with Malaga Wine, and has always been found entirely satisfactory.



# THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XII.  
[NEW SERIES.]

LOUISVILLE, KY., DECEMBER 5, 1891.

No. 12.

*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### THE MEDICAL PROFESSION IN EUROPE.\*

BY W. SYMINGTON BROWN, M. D.

To allay your fears, I beg to say that this will be a very short paper, in fact scarcely a paper at all, only a sort of *olla podrida*, made up of random impressions in France and Great Britain during last summer; for I called on one professional man only during the trip, and he did not agree with me. This will be a kind of pick-up lunch, containing a few odds and ends, hearsays, and side-door observations made while trotting at a two-forty gait or lounging in the smoking-room on board a steamer.

One of the first things that strikes a surgeon while abroad is the marked preference for chloroform as an anesthetic. It is true that the two greatest surgeons in England do not use it, Sir Spencer Wells employing bichloride of methylene, and Dr. Thomas Keith using ether; but the great bulk of the European profession still prefer chloroform.

Several years ago Dr. B. Joy Jeffries, of Boston, went across and gave our British brethren fits for not using ether; he succeeded in inducing some of them to change the tippie, but I noticed that most of these frightened converts have returned to their first love, which is both sweeter and stronger. In Paris chloroform is used almost exclusively, both in public and private practice. I am told that ether still holds its own in Lyons.

I should like to know what there is about anesthetics which makes most surgeons so pugnacious. If the battle lay between nitrous oxide and ether, I would almost feel inclined to conclude that the combatants had been inhaling the gas or the vapor before beginning to write on the subject, but the fact is that very little laughter follows in either case. After careful reflection I have come to the conclusion that chloroform is more immediately dangerous, a more treacherous agent, so to speak; but that ether kills nearly as many patients at a later stage, days or weeks afterward, more especially when the kidneys are in a crippled state at the time of the operation.

An experienced Canadian surgeon, whom I met on his return from a prolonged trip to Europe, told me that gross carelessness prevails in England and Scotland as to the preliminary examination of patients. The condition of the kidneys is not generally investigated, and little or no attention is paid to the pulse during a surgical operation. He said that the administration of chloroform in many cases is intrusted to mere tyros. At one operation in Edinburgh the surgeon asked the student detailed for that purpose if he had ever given chloroform before, and he candidly answered, No.

Nearly all the British surgeons I have met or corresponded with condemn the practice of giving ether by hypodermic injections during a surgical operation. It is true that the flagging heart responds more quickly to ether than to whisky subcutaneously; but the duration of the stimulus is much shorter, and there is more risk of abscesses forming at the site of the injection.

One new arrangement is worth notice. The clean sponges are not touched by the assistants or nurses. They are conveyed to the operator

\*Read before the Gynecological Society of Boston, October 8, 1891.

in an aseptic earthenware jug, from which he takes one out as he needs it. This plan reduces contact to a minimum.

I understand that St. Thomas' Hospital is the only one of the large hospitals in London which has not suffered a considerable loss of income on account of the general depression in land values. The trustees of St. Thomas' were shrewd enough to invest their money in city property, which has steadily increased in value, yielding a corresponding income; while Guy's Hospital, St. Bartholomew's, and others had their property invested in rural farms, the rents of which are so much reduced that the managers find it difficult to make both ends meet. This is an object lesson for medical corporations at home.

During this last visit, and also on former vacations, I could not help noticing several things about the profession abroad in which they materially differ from us. These may be briefly alluded to under four heads:

1. The British medical profession is sharply divided into three classes, namely, physicians proper, pure surgeons, and general practitioners. The last named generally begins business by opening a drug store, with a little room in the rear which he calls the surgery. He employs a boy or a qualified clerk to attend the store when he is engaged elsewhere. From fifty to sixty per cent of American physicians "out West" own drug stores or are pecuniarily interested in them. I think that not more than five per cent are similarly situated in Massachusetts.

In England physicians proper are only found in large cities; and most of them have the degree of M. D. Surgeons and general practitioners seldom take this degree. They are content with the plain title of Mr. Even such great lights as Erasmus Wilson and Thomas Spencer Wells had no medical title before being knighted; and the Queen has made the latter distinction so common that it has lost much of its charm.

2. No French physician or surgeon uses a medical sign to attract attention; and it is a rare thing to see even his name on the door. But British doctors nearly all use signs, and some of these are fully as prominent as ours.

As a man rises in the profession, however, his sign becomes smaller, and sometimes entirely disappears.

3. Perhaps the most remarkable thing about the profession in Europe is the wide range of charges for attendance compared with our price-list. I knew a medical man in Belfast, Ireland, who accumulated a good-sized fortune at the rate of one shilling a visit. And I am acquainted with several experienced men of at least average ability, visiting their patients in a handsome carriage driven by a coachman in livery, whose medium charge is one shilling and sixpence. On the other hand, the upper and middle classes in Great Britain are charged higher fees than the corresponding ranks in Massachusetts. With us a wealthy man does not expect to pay much if any more than a clerk or mechanic does.

4. In England most prosperous practitioners employ one or two qualified assistants. I have sometimes wondered why this custom has not obtained a foothold in the United States. The sale of an established practice is much more common in England than in America. It is also worth noting that the social status of medical practitioners is higher here than in Europe.

On the whole I think that we have good reason to congratulate ourselves on the steady progress made by the profession in America during the last ten years. Our weakest point, when compared with European compeers, is the shortness of the time devoted to medical tuition. The study-term should be lengthened to at least five years. If that were done we might dispense with our numerous polyclinics, which are virtually an admission that the regular education has been deficient.

STONEHAM, MASS., October, 1891.

### SPONTANEOUS RECOVERY IN ACUTE ARSENICAL POISONING.\*

BY HAROLD N. MOYER, M. D.

Almost every poisonous substance is characterized by some fairly pathognomonic symptoms with the exception of arsenic. It belongs to the class of intestinal irritants, the symp-

\*Read before the Medico-Legal Society of Chicago, October 3, 1891.



toms of which may be closely imitated by any simple inflammation of these parts. We lack the characteristic symptoms presented by opium, belladonna, or strychnia, so that the diagnosis of arsenical poisoning is difficult or impossible without the aid of a chemical analysis. The symptoms and pathological appearances in acute arsenical poisoning are fairly constant, and yet there is an occasional case in which there is such a wide divergence from the typical picture that there is great liability to error. With these uncertainties clearly before us, we should be very careful in advancing dogmatic opinions.

The average fatal dose of arsenic is well known, but the literature of medicine contains many cases where spontaneous recovery has taken place after the ingestion of a quantity many times greater than a dose that commonly proves fatal. It is apparent that the factors governing these cases are exceedingly various: The resistance of the patient may be greater than usual; a dose, granting that it is all absorbed, may be eliminated that in other cases would prove fatal. Again, the rate of absorption may vary. If the arsenical preparation is relatively insoluble, it may be so long in entering the circulation that the greater portion is either vomited or passed off by the bowels in consequence of the violent peristalsis produced by the drug. As a matter of fact, it is only exceptionally that recovery takes place when these violent symptoms are present. Recovery has, however, been noted after the taking of enormous quantities. Tidy refers most of these cases to that class in which the poison is taken upon a full stomach, as a consequence the great bulk of the drug is rejected with the food in the first efforts at vomiting. It is probable that this is the explanation in most of the cases where spontaneous recovery has taken place after exceptionally large doses. It would be hazardous to deny the possibility of spontaneous recovery even where the arsenic has been administered upon an empty stomach, but we may at least say that it is highly improbable. Any one who has ever examined a stomach containing a considerable quantity of arsenic must have noticed the closeness with which the powder adheres to the mucous lin-

ing of the organ. The healthy empty stomach always contains a small quantity of mucus, and this serves to glue the powder to the stomach walls so that with violent vomiting it is gotten rid of with difficulty or not at all.

The following case is one of peculiar interest, and is, so far as I know, the first time the question of spontaneous recovery from arsenic has been directly raised in a court of law.

The facts are briefly as follows: A man was charged with the attempted murder of his child, the motive alleged being a desire to inherit considerable property belonging to the latter. The testimony brought out at the trial showed that the child was three and one half years of age, and that it had always been of delicate health. The night preceding the alleged poisoning the child was taken vomiting shortly after eating a hearty supper. A physician was called in, and made a diagnosis of dyspepsia and bronchitis. The boy vomited once or twice during the night. At fifteen or thirty minutes after six the following morning the father gave him a drink of water in which it which it was supposed he had placed the poison. At fifteen minutes after seven a woman who had charge of the boy came into the room to dress him. He then complained of feeling ill, and began to vomit. The nurse noticed that the tongue was covered with a thick green coat; the vomited matter was also mixed with a greenish substance that stained the towel upon which it was caught. A subsequent examination of these cloths showed the greenish matter to be Paris green, the quantity recovered amounting in all to about two grains. (Regarding the quantity of Paris green there is a discrepancy between the testimony of the physicians who examined the towels and the chemist who made the tests. The former say that at least one half teaspoonful of Paris green would be required to produce the amount of staining which they saw. We may disregard this, however, as the smallest quantity stated, two grains, is amply sufficient to cause death in a child three and one half years old.) A servant also noted and testified that the child vomited a greenish substance. As soon as the vomiting began a physician was summoned, who reached the house at

8:15 A. M. On the strength of the statements made to him he prescribed an antidote and an emetic, the latter acting freely. This physician refused on the stand to state that he believed the symptoms were due to arsenical poisoning, as he thought they were too mild. A second physician, who saw the child at 10:30 the same morning, also refused to state that in his opinion the illness was caused by arsenical poisoning. After the effects of the emetics passed off there was no special disturbance of the child's health, no vomiting, purging, inflammation, or prostration.

Certain facts in the above account show that this case is one that must be classed among the spontaneous recoveries, granting that a fatal dose of arsenic had been administered as alleged. It must also be placed among the unusual ones, as the poison was given on an empty stomach. At least three fourths of an hour elapsed from the latest time when the poison could possibly have been administered before the child began to vomit, then he was given some milk, and he vomited again. One hour later a physician arrived and administered an emetic, but at this time no greenish matters were discharged.

The question naturally presents itself, and it was one upon which we were asked for an opinion, "Was the Paris green administered as alleged?" If we assume that it was given, then we affirm the possibility of recovery upon an empty stomach and without the use of an antidote or emetic. Granting this possibility, the additional fact presents itself in this case that the child was not ill after this severe dose of arsenic. Assuming that the vomiting was caused by the poison, sufficient must have been absorbed to cause marked irritation of the stomach. Is this possible in view of the fact that there was no purging, inflammation, or prostration three hours after the administration?

Beck mentions a case of spontaneous recovery after Paris-green poisoning in a young boy. Recovery took place only after prolonged illness with severe prostration. It is a general experience that recovery after acute arsenical poisoning, if sufficient time has elapsed for vomiting to have occurred from action of the

drug, is exceedingly slow. The patient is often prostrated for days, and sometimes death takes place long after the administration of the fatal dose.

In view of the very great uncertainty that surrounds the subject of acute arsenical poisoning, we can hardly deny that arsenic was administered in this case, and yet a careful consideration of all the facts throws at least a reasonable doubt upon the testimony. An opinion was accordingly given, that while the facts as brought out in the testimony were not inherently impossible they were in a high degree exceptional.

A very ingenious explanation was offered by one of the medical witnesses. He would account for the spontaneous recovery on the theory that, as the child was suffering from bronchitis, it must have swallowed a considerable quantity of mucus during the night. This he thought would act in much the same way as a quantity of food in delaying absorption of the poison.

CHICAGO, ILL.

## DANGEROUS SYMPTOMS FROM COCAINE.

BY LOUIS FRANK, M.D.

*Chief of Clinic and Demonstrator of Bacteriology in Kentucky School of Medicine, etc.*

About the 15th of July there came under my care a case of balanoposthitis, in which, on account of inflammatory swelling and induration, phimosis existed to such a degree that retraction of the prepuce was impossible. Circumcision was advised, and the patient consenting, it was decided to operate under local anesthesia. A three-per-cent solution of muriate of cocaine was used, of which 10℥ were diluted with 5℥ aquæ destillatæ, and injected hypodermically in the usual way. Anesthesia was complete in three minutes, and the operation, including dressing, lasted about thirty minutes, reckoning from the time of the injection. After the operation the patient, a boy of nineteen, complained of no pain, saying that, as he felt "all right," he thought he would go home. He was kept in a recumbent position though for another fifteen minutes before being allowed to arise. A few minutes after getting up he complained of feeling badly, saying he



felt "sick at the stomach and was dizzy." I compelled him to again lie down, and then noticed that he appeared very pale. His nausea now disappeared, but the dizziness increased, and the pulse, which before was normal, now became very weak, falling to 56 per minute. Respiration was rapid and shallow. Perspiration began to appear profusely over the forehead, extending over the entire face. Pulse became weaker, going down to 47. Respiration now became very slow, though being still very shallow, and perspiration, which had before appeared only on the face, now covered both the trunk and limbs, giving the picture of complete collapse, consciousness being retained. The surface of the body was cold, lips blue, and eyes closed. All questions were answered intelligently though slowly. Sensation remained good, muscular weakness marked, no aural or papillary symptoms. Temperature was not taken, though it was probably subnormal.

At the beginning of the attack he had received tincture of digitalis hypodermically. This was now repeated, atropia and ammonia being also given. After a few minutes the patient begins to rally, respiration and pulse improve, and he soon says he again feels all right. The symptoms have lasted about twenty minutes. Perspiration continues profuse, and now another symptom appears, viz., reddening of conjunctivæ, which increases until all the vessels become extremely dilated, giving the eyes a bright red appearance. He was finally allowed to arise and go home, all the symptoms having disappeared except the conjunctival injection, which remained for about twenty-four hours. This last symptom is one I have never seen mentioned before; it was very striking.

To sum up, the bad effects were first noticed about thirty minutes after the injection of one fourth grain, the patient arising from a recumbent position. Duration of symptoms, which consisted of nausea, weak and slow pulse, shallow and slow respiration, profuse perspiration, subnormal temperature, reddening of conjunctival mucous membrane, was, with the exception of the last one, about twenty minutes:

Two other cases have come under my observation, one of a young physician, the other a

hospital patient. In the first of these two consciousness was lost for about three minutes, with all symptoms of collapse. The patient rallied after inhalation of amyl nitrate. The other case recovered without antidotes in about ten minutes. There was no loss of consciousness. With the exception of the eye symptoms, these two cases were similar to the first one detailed.

I have seen used and used cocaine frequently, but have never seen any evil or dangerous effects from its hypodermic administration, except in those above mentioned. I have noticed though, in some instances, that anesthesia was not as soon established as in some other cases, all conditions being equal; also that some patients show no ill effects from even large doses. I have found it to be uncertain in dose, in rapidity of action, in duration of effects, and in symptoms arising from lethal doses. We have no way of knowing what patients will exhibit an intolerance to the drug. It should be used carefully and in no greater doses than absolutely necessary to control pain, in no cases where not absolutely required. As a substitute for morphia it has been used largely by those addicted to the use of this drug, showing that its constitutional effects are undoubtedly pleasant, another reason for its restricted use. By the laity it is recommended for every toothache and every earache, a practice that should be discountenanced by all physicians.

I do not wish in this paper to be understood as arguing against the use of cocaine, for its worth we all recognize, and it supplies an important place that no other drug can fill. My object is simply to report what to me was an interesting case, and also to recall the dangers attendant upon its hypodermic use.

LOUISVILLE.

## A CASE OF OTITIS PARASITICA; OTORRHEA—DEAFNESS.\*

Treated by Artificial Drum-Membrane.

BY JAMES L. MINOR, M. D.

I have selected this case of multiplicity of diseases, not on account of its novelty alone, but because in relating it several important

\*Read before the Tri-States Medical Association of Tennessee, Arkansas, and Mississippi, November 20, 1891.

points in ear disease are emphasized; and the case presents some features of special interest. A synopsis of the case is as follows: Disease of external ear from vegetable fungus (*aspergillus*)—cure; chronic inflammation of middle ear, with persistent discharge (*otorrhea*)—cure; deafness of eighteen years' duration, relieved by artificial drum-membrane.

Mr. X. consulted me about his ears, January 13, 1888, and gave the following history: Age fifty-five years. Never heard well. In 1849 ear-ache, and following this a discharge from each ear, which continued until 1870, when it yielded to treatment, but left deafness so great that only loudest tones of voice could be heard, and pencil and tablet had to be resorted to. This condition continued until 1880, when the hearing became worse and the discharge reappeared, and so remained until I saw him. I found absolute deafness in the right ear, the drum being retracted, thickened, and scarred. In the left ear only the loudest sounds could be heard; the auditory canal was inflamed and covered with a membranous material of blackish color; there was a perforation about the size of a pin-head near the center of the drum, from which pus from a suppurating middle ear escaped. My treatment was confined to this ear. The ear was cleansed by syringing with bichloride of mercury solution (1-5,000), then dried with absorbent cotton, and tamponed with boric-acid powder. This procedure was repeated daily at first, and then at longer intervals over a period of about a month, at the end of which time all inflammatory symptoms subsided. The hole in the drum remained, however, and the hearing was as bad as ever, hence I decided to try an artificial drum. I first used the little rubber disc, so often tried and so rarely beneficial, and got no help from it. I then extemporized an artificial drum, by taking a bit of absorbent cotton and molding it into a thin disc the size of the drum-membrane. This was moistened with equal parts of glycerin and water and applied to the drum of the ear. As soon as it was properly placed there was an instant change in the facial expression of the patient, and he joyfully exclaimed that he could hear; that the noises from the street sounded again after a silence of eighteen years,

and I was asked to speak, that the human voice might be heard naturally again. I did speak, and found that he could hear and understand when I spoke in an ordinary tone a few feet from him, but that elevation of voice was necessary when I was further removed.

This patient has been under observation for nearly four years. He is still, to all intents and purposes, absolutely deaf, except when an artificial drum is worn, but with it in place he hears well enough for all practical needs. The drum has to be changed every month or so. Occasionally the middle ear becomes inflamed, and the drum has to be removed while treatment for that affection is practiced.

The dark membranous material which came from the ear when treatment was begun I examined microscopically, and found that it contained a certain form of vegetable mold (*Aspergillus flavescens*), which sometimes gives rise to a very obstinate form of inflammation of the external auditory canal. In this instance it yielded to the treatment first instituted, and has not returned.

MEMPHIS, TENN.

## Societies.

### SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Fourth Annual Meeting, held in Richmond, Va., November 10, 11, and 12, 1891.

#### FIRST DAY—MORNING SESSION.

The Association was called to order by Dr. L. S. McMurtry, President, of Louisville, Ky., at 10 A. M.

Dr. J. W. Long, of Randleman, N. C., read a paper entitled, Albuminuria, its Relation to Surgical Operations.

He drew the following conclusions:

1. That ether or chloroform injures rarely if ever healthy kidneys.
2. That when renal disturbances from the use of an anesthetic, the kidneys being healthy, do occur, they are due rather to prolonged narcosis, exposure of the patient, or perhaps to the combined influences of the operation and the anesthetic.
3. That a mild degree of albuminuria or



nephritis, especially if recent, is not a contra-indication to the use of chloroform or ether.

4. That even in the presence of advanced and extensive renal changes an anesthetic may be employed, provided the patient or family are advised of the additional risk.

5. That of the two anesthetics usually employed, it is yet a mooted question as to which is the safer so far as the kidneys are concerned, unless it be in obstetrical operations.

6. That, while it is by no means the rule, profound functional disturbance and even organic lesions may be induced by an operation, apart from the influence of the anesthetic.

7. That such renal changes are due to reflex sympathetic action or sepsis, or both.

8. That operations in certain regions, notably the abdominal, genito-urinary, about the mouth and rectum, are specially liable to produce renal complications.

9. That a healthy condition of the kidneys minimizes but does not obviate the dangers referred to.

10. That albuminuria is always indicative of renal lesions, and should be regarded with distrust, but is not a positive contra-indication to an operation.

11. That when albuminuria is associated with other evidences of advanced renal changes, no operation should be undertaken without first candidly stating to the patient or friends the dangers incident to the condition of the kidneys.

12. That, paradoxical as it may seem, an operation will sometimes relieve an albuminuria due to acute affections.

13. That no surgeon is justified in undertaking an operation without first knowing the state of his patient's kidneys.

Dr. Bedford Brown, of Alexandria, Va., read a paper on Systemic Infection from Gonorrhea. He cited five cases. He believes that there are two channels for the absorption and transmission of the gonorrheal microbe into the general system. One is by continuity of surface over the mucous membrane of the genito-urinary tract from the urethra to the kidneys. The other channel is through the medium of the great lymphatic system, from the lymphatics of the urethra to the inguinal glands, thence

through the lymphatics of the system into the general circulation. He believes also that this microbe so transmitted is lodged at different points in the organism. The gonorrheal microbe transmitted by continuity of surface over the genito-urinary tract invariably induces specific suppurative inflammation. On the contrary, when transmitted through the lymphatics, the inflammation is not of a suppurative character, but assumes peculiar types; then the contact of the infectious microbe with the mucous surfaces produces suppurative prostatitis, cystitis, ureteritis, pyelitis, and then pyonephrosis. The absorption of the same through the lymphatic channels first sets up lymphangitis of the lymphatics of the urethra, then lymphadenitis of Cowper's glands, then of the inguinal glands and inflammation of the connecting lymphatics. By further absorption it may induce septic phlebitis of the thigh, and finally synovitis, endocarditis, and internal destructive ophthalmitis. He also believes that in certain cases genuine septicemia may be developed in the course of these complications.

Dr. J. Edwin Michael, of Baltimore, Md., read a paper entitled, A Report of Some Additional Cases of External Perineal Urethrotomy without a Guide, in which he said that the operation is one of great value both in gonorrheal and traumatic cases, and he thinks one is justified in bringing forward any experience in it which may be of use to the profession. His results were very satisfactory, a fact which he attributes rather to the fortunate circumstance that his patients were largely free from grave constitutional disease than to any method or application which he had to suggest. He had simply followed what he considered the precepts of good surgery as applied to this region of the body, viz., free incision, free drainage, and as much of antiseptic surgery as the circumstances would allow.

#### AFTERNOON SESSION.

Dr. Joseph Price, of Philadelphia, Pa., read a paper on Complications in Pelvic Surgery, and How to Deal with Them. The author's reasons for choosing this subject were that the importance of recognizing the part that complications play in the work of the surgeon are

not appreciated by the generality of medical men, by general surgeons, and least of all by the tyro in surgery, and by those who are anxious to begin their surgical investigations and trial-trips by an entrance into the domain of abdominal or pelvic surgery. The complications in this special branch of surgery are primarily those of surgery in general, with many things superadded to render them formidable. It may be the intention of the surgeon to remove the appendages for a bleeding fibroid. In ordinary operations the removal of the uterine appendages is to the skilled abdominal or pelvic surgeon one of the simplest of undertakings. If, however, he attempts to accomplish their removal without holding in mind the complications that as a rule exist, or if he is a neophyte or an experimental dabbler, he will find too late in many cases that he has attempted an operation that he can not finish, or, if he does complete it, he has also sacrificed his patient or rendered her worse off than before. In other words, to accomplish a cure he must abandon removal of the appendages and perform hysterectomy, which has but little in common with the operation originally proposed. If this idea is still further carried out, we shall find that complications do not confine themselves to one system of organs, but extend to all surrounding structures by reason of inflammatory adhesions. This is true of the bladder, ureters, intestine, omentum, stomach, and liver. Adhesions are the bane of abdominal and pelvic surgery, and hence we see that the greatest mistakes and failures are made by those who, from a knowledge of abdominal surgery simply, have attempted to deal with pelvic inflammations. The abdominal surgeons who can be counted as really successful pelvic surgeons are therefore few. This is said with no intention of detracting from the importance of abdominal surgery. The strictly abdominal organs must always enter largely into the domain of surgery.

Laparotomies Performed During the Past Year was the title of a paper read by Dr. Thos. Opie, of Baltimore, Md.

The tabulated statement accompanying the paper embraced thirty-two abdominal sections made in the twelve months beginning No-

vember 1, 1890, and ending October 31, 1891. The operations were performed consecutively as set forth in the accompanying table. They were, Ovarian tumors, 6; chronic ovaritis, 7; fibroid tumors, 4; pyosalpinx, 5; retroflexion with adhesions and dysmenorrhea, 3; exploratory incisions, 3; extra-uterine pregnancy, 1; abscess of ovary, 1; cyst of broad ligament, 1; cystic degeneration of ovary, 1.

Nine of these patients were operated on in the amphitheater, before the whole class, at the College of Physicians and Surgeons. The remainder, twenty-three, were operated upon privately. Twenty-seven were white and five were colored. The deaths were as follows: Oöphorectomy for pyosalpinx, 1; shock from ovariectomy, 1; oöphorectomy for acute mania, 1; and abdominal hysterectomy for fibro-cystic tumor, 1; total, 4.

Stitch abscess: This complication occurred nine times. They occur most frequently in cases where the drainage-tube has been used.

Drainage was resorted to in but three cases during the year.

Dr. Cornelius Kollock, of Cheraw, S. C., read a paper entitled, Ovarian Cysts, with the Report of a Case of Ovariectomy in a Young Girl.

CASE. Miss C. L. H., aged eleven years, eight months, and nineteen days. General health perfect in every particular. Menstruation first appeared about two months before she was eleven years of age, and continued with perfect regularity, never excessive or scant, nor was it accompanied by the slightest pain. Her physique was fine in every way. Though less than twelve years of age, she weighed one hundred and thirty-five pounds; was strong and active. Her breasts were as full and large as those of a woman at thirty-five. She was very handsome, had a fine voice, and sang beautifully. She was very intellectual, and stood at the head in all her classes in a large high school. He saw her for the first time on the 9th of January, 1891. The abdomen was greatly distended, but facies ovariana was not very pronounced. He was confident she had an ovarian cyst, and rather suspected she had two. On the 16th of January he made a section about three inches below the umbilicus and removed a cyst from each side, the one



on the left weighing twelve pounds, and that on the right seven pounds. A more prompt and complete recovery the writer had never seen from the simplest operation. Union by first intention took place, and the sutures, silver wire, were removed at the end of the seventh day. In twelve days she was up and about her room, and on the twenty-third day after the operation returned to her home, a distance of two hundred miles.

It is now ten months since double ovariectomy was done on this young girl, and there has not been the slightest discharge from her of any kind. At each menstrual period there is considerable commotion in the pelvic region, attended with some uneasiness in the head and back; but at each period these symptoms decreased, and the last two were accompanied by no pain whatever.

#### SECOND DAY—MORNING SESSION.

Dr. William Warren Potter, of Buffalo, New York, read a paper entitled, *A Medico-Legal Aspect to Pelvic Inflammation*. So far he had not observed that any one had undertaken to discuss these intra-pelvic conditions from a medico-legal standpoint. It was his purpose to present that aspect of the question, taking for his text a case that developed an interesting problem in that respect. After giving a history of the case, Dr. Potter emphasized the following points:

1. The intimate anatomical relations between the pelvic organs and the larger joints of the lower extremities, especially the hip and knee joints, render them liable to reflexes.
2. The importance of careful diagnosis at the outset, lest grave errors and possible disastrous consequences may result from treatment.
3. The medico-legal bearing that errors of judgment in diagnosis and treatment may have in relation to the patient, as well as upon the reputation of the physician.

Dr. John D. S. Davis, of Birmingham, Ala., read a paper on *The Medico-Legal Aspect of Intestinal Surgery*. He said many physicians and surgeons who condemn all mechanical aids for intestinal repair know not how to use them, never saw them used, refuse to indorse a resection for gunshot or stab wounds, have been

known to go in the witness box for purposes of condemnation and disapproval when they knew no more about intestinal surgery than a wild Indian about school-teaching.

In this day of specialties in medicine but few general surgeons have either the appreciation, opportunity, or disposition to qualify themselves as expert operators in intestinal surgery; but many, to the discredit of the profession, voluntarily appear in the criminal courts of the country pretending to be such, wise and proficient! One of the greatest professional sins of the day is perverted knowledge of conceited ignorance. It is too often that physicians and surgeons weaken and invalidate their opinions to a greater or less degree by unscrupulous interest in behalf of those employing them, a fact cunningly turned to advantage for defendants in criminal prosecution, and for like reason may become dangerous to the operators they oppose and envy.

To be able to do a laparotomy for stab or gunshot wounds of the intestines, inflicted by one with murderous intent, and be able to evade civil and criminal liability, the operator must (1) be able to show evidence of ordinary surgical knowledge in the requirements of the special operation to be performed; (2) he must possess ordinary surgical ability for doing the special operation to be performed; (3) he must exercise ordinary prudence in performing the special operation to be done, as to time, place, antiseptics, sepsis, assistance, nurses, and after-treatment; (4) he must perform the special operation in an ordinary skillful manner. Hence, to prevent confusion it will be good, if possible, to determine what constitutes ordinary surgical knowledge, ability, prudence, and skill. Upon these depend the whole medico-legal status of the intestinal surgeon, and upon which the expert should be required to depend also. According to the practices and rulings of courts in this country, the word ordinary, in its surgical adjectiveness, means that the surgeon shall be capable of and exercise that surgical knowledge, ability, prudence, and skill with which a fair proportion of the surgeons of his given locality are endowed, and not that of the highest lights of his profession.

Dr. I. S. Stone, of Washington, D. C., read

a paper on The Pedicle in Hysterectomy. The three principal methods were described, and illustrated by colored drawings showing the arrangement of the pedicle in the abdominal wound. The author claims a revival of interest in the operation, and that there is need for its frequent performance. The statistics are far better now than ovariectomy claimed after it had become an operation of election and was firmly planted in public favor.

Particular attention is given by the author to tying off the broad ligaments and the use of the elastic ligature. Sewing the parietal peritoneum to that of the pedicle in the extra-peritoneal cases was also dwelt upon.

The method by ventro-fixation had given good results in the author's hands, and serves to accomplish two important purposes, viz., a speedy convalescence, and avoids the disagreeable sloughing which follows the use of the wire clamp. It may also be used in some cases of short pedicle, where the wire may not easily be applied. The methods were compared and statistics furnished, showing that the extra-peritoneal method with wire and pin gave better results than either of the others; that ventro-fixation came next and the intra-peritoneal method last, with a large mortality.

#### AFTERNOON SESSION.

The President, Dr. L. S. McMurtry, of Louisville, Ky., delivered the annual address, A Plea for Progressive Surgery.

He said within fifteen years the entire practice of surgery has been revolutionized. New methods have been introduced and new regions invaded. Comparatively recent teachings have become obsolete in practice, and modern treatises recast. The science and art of gynecology, which a few years since was limited to a small and narrow field, has grown into a great branch of medical science and practice. Formerly divided between midwifery and surgery as a minor branch of one or both, gynecology has become an independent and essential department of the healing art.

When Marion Sims announced through the columns of the British Medical Journal that he believed the proper course of treatment in every case of gunshot wound of the abdomen

is to open the belly, search for the bleeding points and secure them, and suture intestinal perforations, he was pronounced by many eminent surgeons to be a dreamer. The suggestion of Sims was most timely, and shortly afterward Bull successfully executed the operation. For years the treatment by opium in full doses had been pursued, with death in waiting. Now there is scarcely a State in the Union in which one or more patients have not been rescued from certain death by prompt resort to operative treatment. He mentioned these circumstances to illustrate and emphasize the point that surgery is advanced more by the aggressiveness of the surgeon than by timidity. In the face of desperate conditions of disease and injury, where there can be no safety whatever in delay and palliation, the only treatment worthy of consideration is the aggressive course which promises success. Under such conditions the most heroic surgery is conservative, and any other course is not conservative.

Dr. Joseph Taber Johnson, of Washington, D. C., read a paper on The Growth of Fibroid Tumors of the Uterus after the Menopause. He said the object of the paper was to put on record cases and opinions in opposition to this view of this important subject, and to aid in recasting our views and in modifying our practice. The author drew the following conclusions:

1. That the "rule" stated in the text-books that uterine fibromata cease to grow after the menopause has many more exceptions than is generally supposed.
  2. That when they continue to grow after the menopause they pursue a more disastrous course than before.
  3. They more frequently become cystic, calcareous, or have abscesses develop in them.
  4. These conditions requiring operation according to well-known rules of surgery, the patients are in a less favorable condition for recovery than before the menopause.
  5. If the above conclusions are admitted to be true, it must follow that they furnish additional indications for more frequent and earlier resort to the radical operation.
- In the hands of the best operators in cases where a pedicle can be secured, the mortality



of supra-vaginal hysterectomy is rapidly approaching that of ovariectomy.

Dr. C. A. L. Reed, of Cincinnati, read a paper on The Surgical Treatment of Anterior Displacements of the Uterus. He said anterior displacements of the uterus, when they exist to the pathological degree, are the opprobria of the gynecic art. It is indeed true that many wombs lean far forward without inducing symptoms, but it is likewise true that many of them that are thus malposed do entail symptoms, objective and subjective, that frequently baffle our resources.

In the treatment the term surgical is employed in contradistinction to any method of treatment by pessaries, tamponnade, or electricity. It may be premised that all surgical methods devised for the relief of these conditions should be directed, first, to the removal of the causes of the diseased conditions proper when practicable, and, finally, to the readjustment of the diseased organs to the normal physical force of the pelvis.

In conclusion the author desired the Association to consider.

1. The etiological relationship of contracture of the utero-sacral ligaments to ante flexion.

2. The possibility of overcoming this condition by such conservative measures as rest, pelvic depletion, and appropriate manipulations.

3. The feasibility of removing the obstructive dysmenorrhea and the sterility usually incident to these cases by the plastic operation which he had described.

4. The inexpediency of forcible dilatation for the relief of these cases, and its inability to effect a permanent cure.

The Part the Shoulders Play in Producing Laceration of the Perineum, with Suggestions for its Prevention, was the title of a paper read by Dr. D. W. Haggard, of Nashville, Tenn., who made the following suggestions:

1. The patient should occupy the left lateral decubitus, at least during the second stage of labor.

2. Overcome rigidity of the vulvar outlet by the judicious use of chloroform.

3. The presenting part of the child should be supported, and not the perineum, during the passage of the head and shoulders.

4. Support the head by pressing it well up under the symphysis pubis, by placing the right thumb in the rectum and fingers of right hand expanded over the occiput.

5. To retard the exit of the shoulders, pressure should be applied to the trunk and shoulders by placing the index and middle fingers of the left hand in the rectum with the thumb in the vagina to restrain its exit.

6. Support the head and neck by pressure well over the symphysis pubis.

### THIRD DAY—MORNING SESSION.

Dr. James A. Goggans, of Alexander City, Ala., read paper entitled, Abdominal Section in a Case of Cyst of the Mesentery.

He said that the patient upon whom he had operated for a cyst of the mesentery was a young woman, twenty-one years of age, daughter of a physician, of Columbus, Ga. She had not been well for two years, but did not know her abdomen was becoming larger until three months before the operation. During those three months she had been treated for abdominal dropsy, and had suffered much uneasiness and pain in the abdomen, and at the time of the operation her pulse was 120, and temperature 100° F. The cyst was quite large, occupied mostly the left side of the abdomen, extended from under the ribs into the left lumbar region, dipped downward into the pelvis, and extended three or four inches beyond the median line of the abdomen into the right side. He said that he first removed about a quart of the fluid by aspiration on February 7, 1891. The fluid was thin and of a dark color, and contained albumen, phosphate, and chlorides. The patient was not benefited by the operation, and the abdominal section for the removal of the cyst was made on February 24, 1891.

The cyst was covered with omentum and mesentery, and loops of small intestine were embedded in its walls. An attempt was made to enucleate it, but hemorrhage was so free that the idea of enucleation was soon abandoned. A point as remote as possible from blood-vessels and intestines was selected, the cyst incised and drained. More than one gallon of a thin, dark colored fluid was evacuated, the sac irrigated with hot water, the lips of the

incised sac stitched to the upper angle of the abdominal incision, and a glass drainage-tube introduced to the bottom of the cyst. The abdominal incision was then closed with silk-worm gut sutures. The author was confident that the cyst was retro-peritoneal. The time consumed in the operation was twenty-five minutes. The sac was irrigated three or four times in the twenty-four hours, and the drainage-tube gradually withdrawn. The patient suffered much from nausea and vomiting, which he attributed to the close connection between the walls of the sac and the loops of small intestine. The patient made a good recovery within thirty days. He presented a picture of the patient which was taken the 1st of November, 1891, which showed her to be in perfect health.

Thinness of Uterine Walls Simulating Extra-Uterine Pregnancy, with report of two cases, was the title of a paper by Dr. Geo. J. Engelmann, of St. Louis, Mo.

CASE 1. Patient, thirty-two years of age, had borne three children in the six and a half years of her married life, the youngest twenty months ago, which she was still nursing, and the menstrual flow has not as yet reappeared since the birth of this child. The patient came to his clinic for relief from a variety of discomforts from which she had been suffering more or less for the past three months. She complains of sick headache, vomiting spells, fullness of the stomach, belching after meals, and an intermittent swelling of the abdomen; a pain in the groin, appearing before such swelling, and a small tumor above the right groin, which she had first noticed three weeks ago, as she stated, then suddenly made its appearance.

An examination revealed large varicose veins over the lower limbs; a solid, round, movable tumor above symphysis and right groin; the cervix low and large; the uterine body thickened, lying low in the pelvis, with a certain mobility independent of the superimposed tumor, an applicator entering three and a half inches slightly *ante*. Notwithstanding the wine color of the pronounced cystocele and the cervix, pregnancy seemed out of the question, and the tumor was diagnosed as most probably a dermoid of the right ovary, hardly one con-

nected with the uterine wall. In the course of an examination two weeks later a very different condition of affairs was revealed. The tumor had disappeared, and a fetus was found in the utero-vesical space, freely movable, apparently floating about, the small parts being distinctly felt, as if under a wet towel, both through the vagina and abdominal walls. So distinct did the small parts appear to the examining finger that it seemed impossible to realize that even as much as a thickness of the vaginal tissues should intervene, and the abdominal walls must certainly have been very much attenuated to disclose the fetal parts with such distinctness. Probe showed the uterine cavity free six and a half inches in length, still slightly *ante*, but never curving forward in the direction of the previous tumor.

The treatment for the supposed sub-involution was discontinued, the patient warned to keep quiet and to notify Dr. Engelmann upon the occurrence of any abnormal symptoms. He believed the case to be one of ectopic gestation, either within the broad ligament or in the abdominal cavity, after tubal rupture marked by the sudden appearance of the tumor five weeks ago, yet he was not sufficiently positive to warrant the immediate resort to the knife; and well that he did not do so, as persistent treatment and repeated examinations resulted in labor pains and the delivery of a five months' fetus in the most correct and natural manner.

Dr. Robert T. Morris, of New York, contributed a paper on The Removal of Necrotic and Carious Bone with Hydrochloric Acid and Pepsin.

After much experimentation he had finally adopted a method of work which seemed to be complete. An opening is made through soft parts by the most direct route to the seat of dead bone, and if sinuses are present they are all led into the one large sinus, if possible. The large direct sinus is kept open with anti-septic gauze and the wound allowed to remain quiet until granulations have formed. Granulation tissue contains no lymphatics, and absorption of septic material through it is so slow that we have very good protection against cellulitis. The next step consists in injecting into the sinus a two-or three-per-cent solution of



hydrochloric acid in distilled water. If the patient is confined to bed the injections can be made at intervals of two hours during the day, but if it is best to keep the patient up and about the acid solution is thrown into the sinus only at bed-time. In either case the patient is to assume a position favorable for the retention of the fluid. Decalcification of exposed layers of dead bone takes place quickly, and then comes the necessity for another and very important step in the process. At intervals of about two days an acidulated pepsin solution is thrown into the sinus (he uses distilled child's pepsin, 3ss.), and this will digest out water, ʒiv; hydrochloric acid, Mxvi; Fair-decalcified bone and caseous and fatty *debris* in about two hours, leaving clean dead bone exposed for a repetition of the procedure. The treatment is continued until the sinus closes from the bottom, showing that the dead bone is all out.

Even in distinctly tuberculous cases the sinuses will close if apparatus for immobilizing diseased parts and tonic constitutional treatment are employed, as they should be, in conjunction with our efforts at removing the dead bone. If suppuration is free in any cavity in which we are at work, it is well to make a continual practice of washing out the cavity with peroxide of hydrogen before each injection.

Dr. Landon Carter Gray, of New York, in a paper entitled, *The Present Status of Cerebral Surgery*, touched upon the modern aspect of intra-cranial surgery. The speaker first passed in review our present knowledge of localization of functions of the brain, stating that we were well acquainted with the functions of the motor area, of the third frontal convolution, the frontal lobe, the island of Reil, the two upper temporal convolutions, the cuneus, certain portions of the basal ganglia, the base of the brain and cerebellum, and that we knew nothing, or had still under discussion the question of the localization of the centers for the sensations of touch, pain, muscular sense, temperature sense, most of the parietal lobe, and most of the temporo sphenoidal lobe, with the exception of the olfactory lobe. He stated that operations for fracture of the skull, with or without hemorrhage, for abscess, and for

tumors that were removable and localizable, were usually successful; those for so-called idiopathic epilepsy were utterly valueless, as were also those for epilepsy supposed to be due to genital or ovarian irritations, while those done for epilepsy due to removable and localizable lesions of the intra-cranial contents were usually successful so far as the lesion was concerned, although it was a grave question as to whether the epileptic habit was ever cured; the latest operation for idiocy supposed to be due to premature ossification of the fontanelles was still under discussion and consideration, the cases being too few and too recent to permit of any conclusion; while the operations for hydrocephalus and for epilepsy due to such early infantile and fetal lesions as parencephalus, hemorrhage, and meningitis were indefensible. He further impressed upon surgeons the great difficulty that there often was in finding a sub-cortical lesion of the centrum ovale that was deep-seated or small, and the fact should be borne in mind that there might be no decussation of the motor fibers from the hemispheres, so that a lesion would be found upon the same side as the paralysis.

#### AFTERNOON SESSION.

Dr. W. E. B. Davis, of Birmingham, Ala., presented a paper entitled, *Treatment of Gall-Stones, with Cases*.

He said the treatment during the attack consists in hypodermics of morphine and atropine, with the use of ether and chloroform until the other remedies have had time to take effect. It is usually soothing to place the patient in a hot bath, and large draughts of hot water will relieve the distressing nausea.

After gall-stones have formed, experience does not warrant us in placing confidence in medical treatment for their cure. The sweet-oil draughts, as has been abundantly shown, only become saponified, and give rise to stone-like masses. Turpentine, chloroform, and wild yam are not curative.

Perhaps something may yet be found that, when injected into the bladder, will dissolve the stones. This is especially desirable for stones located in the ducts. It would seem that medical treatment should prevent their

formation; but, so far, there is no very good evidence to show that any medicine has this effect.

A stone in the gall-bladder produces such a condition as to favor the formation of other stones; and after an operation for the removal of the stone and the relief of the local condition we have no return of the disease, except in a very small per cent of cases. This is so in those cases in which stones had been forming rapidly before the operation, and would go far to show the importance of the local causes of the disease. Then, in addition to general tonics, iron, phosphate of soda, mineral waters, etc., our dependence must be placed on operative procedures.

In some cases it may be difficult or even impossible to make a diagnosis of gall-stones; but it has been said very correctly that the mistake is much oftener made in calling gall-stones something else than of calling something else gall-stones. Paroxysms of epigastric pain, with tenderness over the lower hepatic region, accompanied with bile in the urine, and followed by clay-colored stools, and sometimes the passage of stones, are the symptoms on which dependence must be placed. The shoulder pain is rarely present, and jaundice is most frequently absent. It is only when there is obstruction in the hepatic or common duct that this symptom is to be expected; and often the obstruction is so evanescent as not to give rise to sufficient obstruction to produce jaundice.

When there are frequent severe attacks of biliary colic, it is best to operate and give the patient the benefit of the exploration, and avoid the danger of a peritonitis. It is not conservatism to delay operation where there are obstructive symptoms, until the liver has become involved and the patient's blood poisoned. He had seen a number of these neglected cases in which an operation could offer no chance whatever.

He reported a case of death from peritonitis following repeated attacks of biliary colic where there was sufficient warning to save the patient, but her physician would not advise an operation.

In some cases, however, there are no symptoms to indicate the presence of a stone until

peritonitis has resulted from ulceration thus induced. During the past month he had operated on such a case at Ashville, Ala., for Dr. D. E. Cason. The patient was a woman, seventy-four years of age, and had never experienced any symptoms of gall-stones.

He recommends cholecystotomy, and opens the bladder and sutures it to the parietes at one operation. He reported a case in which he removed fifty-one gall-stones from the bladder, one of them being impacted in the cystic duct, and the patient made a perfect recovery.

Cholecystectomy, the removal of the gall-bladder, should never be an operation of selection, and only resorted to when cholecystotomy is not possible. Do not stitch the bladder to the parietes and wait for adhesions before opening the viscus, as it is necessary for it to be opened and emptied before the abdominal wound is closed, in order to recognize conditions which will require manipulations within the abdomen as well as within the bladder.

Stones impacted in the ducts must be dislodged and pushed into the bladder or duodenum. It may be necessary to break them up with a needle before this is possible. In some cases the duct should be incised and sutured. Where the obstruction in the common duct can not be relieved, cholecysto-enterostomy should be resorted to.

The following officers were elected: President, Dr. McFadden Gaston, Atlanta, Ga.; First Vice-President, Dr. Cornelius Kollock, Cheraw, S. C.; Second Vice-President, Dr. Geo. Ben Johnson, Richmond, Va.; Secretary, Dr. W. E. B. Davis, Birmingham, Ala.

Place of next meeting, Louisville, Kentucky, second Tuesday in November, 1892.

Chairman of Committee of Arrangements, Dr. L. S. McMurtry, Louisville, Ky.

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A VENEREAL CONGRESS.—A project is now under discussion by different boards of the Paris municipal government to establish an international congress to consider questions connected with prostitution and the limitation of venereal diseases. It is proposed to hold the congress in Paris, in 1893, and to invite medical men, sanitary officials, and political economists.



## Correspondence.

## LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

*London Ambulances; Sir James Sawyer on Patients; Ichthyol; A New Anesthetic; Tales of Abernethy; New Issue of the Annual of the Universal Medical Sciences; Ectopic Gestation; The Diagnosis of Uterine Carcinoma; The St. George's Hospital Graphic Society; Dr. Unna's Clinic.*

The Hospitals Association is rapidly completing its work of establishing throughout London ambulances for the removal of injured persons. During the last few days three new stations have been opened. This is the first installment of a series of twelve new stations which are now being opened on the recommendation of the Chief Commissioner of Police.

Patients, in the opinion of Sir James Sawyer, are an unreasonable class. They do not mind paying a big fee to a physician for his prescription, but they often grudge a small fee to the pharmacist. If the public were more generous in the matter he thinks there would be no doubt whatever that pharmacists would always employ the best drugs, as it is their duty to employ them. The best remedy, says Sir James, is for the pharmacist to ask his customer what priced drug he would have, letting the price vary according to the quality of the drug, and then the British public would very soon see how pernicious is their pursuit of low prices in dispensing. "Laughter and applause" followed this sally, which it may be assumed is not to be taken too seriously.

Dr. T. Cranstoun Charles, of St. Thomas' Hospital, has published an interesting little pamphlet on ichthyol, which forms a valuable contribution to the therapeutics of this compound.

A new anesthetic has been given the name of *peutal*. The name is chosen, owing to the circumstance that it contains five carbon atoms. It is very volatile and easily combustible. It can be administered exactly like chloroform. Anesthesia sets in after three or four minutes, rarely later. It is not deep, but suffices to render small operations, such as the extraction of

teeth, painless. It is neither accompanied nor followed by any unpleasant effects.

Some amusing tales of Abernethy have recently been told in a paper by Dr. Richardson. According to this authority, the eccentricity of Abernethy was not an affectation, but a cast of mind, and was due to all but unconquerable shyness. When lecturing at St. Bartholomew's Hospital he used to slouch into the lecture room with his hands buried deep in his breeches' pockets, whistling for courage; then he threw himself into a chair, swung one of his legs over an arm of it, and began to lecture. He talked wonderfully well, with much dramatic power and with great gift of mimicry, which he employed by turns of exhibiting the peculiarities of his patients or the follies of the profession. It is told of him that once when called in to the Duke of York he entered the room whistling, perhaps to recover his composure. "I suppose you know who I am," said the Duke. "I suppose I do," replied Abernethy; "what of that?" Sometimes he received as good as he gave. "What am I to do with this?" asked a lady when he handed her his prescription. "Any thing you like," he said; "put it on the fire, if you please." She laid down her fee, tossed the paper into the grate, and left the room.

Dr. Richardson thinks that the great professional incomes of the past fall short of those of our times. Baillie, who had the leading practice in London, is reputed to have made £10,000 in some years, and Chambers, who belonged to the earlier part of the present reign, earned between 7,000 and 9,000 guineas a year. When he lost the use of his hand by absorbing poisonous matter from a wound, the report ran that his fingers had grown crooked by grasping fees.

Five new volumes of the *Annual of the Universal Medical Sciences* have recently appeared under the editorship of Dr. Sajous and seventy associate editors, who are assisted by a staff of over two hundred correspondents. This is the fourth issue of the work, the first series having appeared in 1888. Every branch of medicine, hygiene, surgery, and materia medica is ably represented by competent writers. The style of the work is concise, and there are plenty of

well executed illustrations, both plain and colored. The issue for 1891 has been delayed by the illness of one of the co-editors and the death of some valuable correspondents. It is nevertheless considered to be quite equal to any of its predecessors.

Dr. Leith Napier has given his recent experiences of a cure of advanced ectopic gestation, complicated by septic peritonitis. The patient, a married woman aged twenty-five, had been married two years and eight months, had had no children, but three miscarriages. During September, 1890, menstruation ceased. The usual signs of pregnancy were observed, with abdominal enlargement. In March of this year she had a fright, and fetal movements ceased. The following April there were labor pains, and a large blood clot was passed, the abdomen continuing to enlarge until August, when it became somewhat smaller. On August 17th she came under the care of Dr. Napier in the Chelsea Hospital for Women, when septic peritonitis from a degenerated ectopic gestation was diagnosed. On the last day of the month the abdomen was opened by a mesial incision, and a macerated, malodorous fetus of seven or eight months' development was extracted. The cavity was washed out with perchloride of mercury solution and rubbed dry. Its edges were then sewn to the abdominal incision with silk ligatures. The abdomen was cleansed with boric-acid solution, a glass drainage-tube inserted into the cyst and packed round with carbolized gauze. As fecal odors existed in the cyst, it was evident that a communication with the bowel existed. Fecal discharge persisted from the tube, and eventually a small fecal fistula was formed, which appeared to have closed by the end of September. The cyst was partly composed of new material and partly of distended broad ligament. It was not possible to determine if the primary position of the fetus had been tubal or abdominal.

Attention is drawn by Dr. G. Winter to the great importance of an early diagnosis in all cases of uterine carcinoma. The average of all women suffering from cancer of the uterus who are operated on is twenty-five per cent, of whom seven per cent recover, while ninety-three per

cent succumb. Dr. Winter finds that discharge is a regular symptom of cancer. In carcinoma of the vaginal portion a copious watery discharge appears at an early stage of the disease, later assuming the color of liquor carnis. Hemorrhages following coition are important, while those in the menopause he looks upon as being almost pathognomonic. At first pain is either very slight or entirely absent, but when the growth becomes parametric pain is always present.

The late Sir Prescott Hewett formed the St. George's Hospital Graphic Society for the encouragement of painting, sketching, and photography among its members, an annual exhibition being held for the display of work done. At its recent exhibition, which was held in the board room of the hospital, through the kindness of Miss Prescott Hewett a number of the late president's beautiful landscapes were exhibited and attracted universal admiration. The most interesting series of photographs were considered to be some splendid bromide enlargements of Swiss mountain scenery exhibited by Mr. Dent, one of the hospital surgeons and president of the Alpine Club. The exhibition remained open a week, and was visited by a great number of people.

Dr. James, of Sheffield, having returned from a visit to Dr. Unna's clinic at Hamburg, says that from notes he has taken on the treatment of leprosy, lupus, psoriasis, and eczema, the divergence from English principles and practice is most marked, especially the more elaborate methods of external treatment that distinguishes the German schools. Dr. James argues that English physicians have attached more importance to diet in skin diseases than it deserves, and points out that there is a complete want of agreement in their dicta, and these are wholly controverted by German practice. He contrasts the abstention from smoked and salt meats enjoined on British sufferers, as compared with the practice at Hamburg, where the ordinary smoked meats of the German cuisine form no mean part of the dietary. The tan bath is found of great service in all hyperemic conditions of the skin.

LONDON, November, 1891.



## Abstracts and Selections.

A CONTRIBUTION TO THE HISTORY OF LEPROSY ON THE EASTERN COAST OF THE UNITED STATES.—At the recent meeting of the American Climatological Association Dr. W. H. Geddings, of Aiken, S. C., presented a communication concerning the simultaneous occurrence of three cases of lepra in one family. A list of all the cases of the disease that had occurred in Charleston from 1847 to 1882 constituted seventeen in number. A few years later another case was seen by the writer. She was not a resident of the city, but of a neighboring village on the coast. Including the three described in the present paper, twenty-one well authenticated cases have occurred within the last thirty-four years in and near Charleston. These cases throw but little light on the etiology of the disease. They were nearly all young adults or persons of middle age. They embrace every grade of society from the descendants of the old Huguenot families, who immigrated to this country hundreds of years ago, down to the humblest domestic servant. Four were Jews, and the others Christians; sixteen were whites, four mulattoes, and one a full-blooded negro. They were all natives, and with the exception of one, whose parents were Irish, their ancestors had lived in the country for a number of years. As the negroes predominate in this section, the fact that only five out of twenty-one were colored would indicate that here this race is less liable to the disease than the whites. In one instance a mother and her daughter were affected with the disease, and in another a father and his son.

In South Carolina the disease appears to be confined almost exclusively to the seacoast. It will be remembered that this is also the case in Norway. These unfortunates are in no way restrained, and when not too ill may often be seen walking about the streets of the city. Their appearance excites commiseration, but no one fears to come in contact with them. They live with their families, but mingle freely with the outside world. The number of lepers in the city at any one time has varied from one to three, and as the disease has never evinced the slightest disposition to spread there has never been any fear of its becoming epidemic. How long this will remain the case is doubtful, as Dr. James C. White says that it is spreading rapidly in Louisiana and Florida.

*Family History of the Three Cases.* Of the paternal grandparents nothing is known. The father was a Sicilian sailor. He made several voyages between Sicily and New York, but there is no reason to suppose that he ever vis-

ited countries in which leprosy is endemic. He soon abandoned the sea and removed to Charleston, where he was engaged in business for a number of years, and eventually died there of congestion of the brain. The mother is a strong, healthy woman, of native parentage, fifty-eight years of age, who has borne twenty children, eight of which are still living. On neither side is there any evidence that the ancestors suffered with lepra.

*General History of the Development and Course of the Disease.* In the autumn of 1885 Charleston was visited with a severe cyclone, which inundated portions of the city with salt water from the adjacent rivers. The family inhabited a house in the inundated district, and had stored in the cellar some of their carpets and other household furniture. Two days after the flood, when the water had partially subsided, two of the sons and one of the daughters, all of them apparently in perfect health, undertook to remove the damaged effects, and to accomplish this work were compelled to wade through water which reached to their hips. The water is said to have presented a dirty, greenish appearance. They were engaged in this work for two days. On the evening of the second day, while drying themselves before the open fire, they all noticed a number of bullæ on the outer side of the left leg. These bullæ, at first about half an inch in diameter, gradually enlarged, and finally coalesced into large blebs extending from the external malleolus half way up the leg. They were filled with a clear, serous fluid of a bright yellow color. In the course of two or three weeks these gradually dried up and desquamated, leaving purple spots, which later on assumed the appearance of white cicatrices. As the bullæ disappeared it was noticed that the affected area was devoid of sensation. The skin then assumed a brownish yellow color, almost bronzed. Tubercles were developed over various portions of the body, but were larger and more sharply defined on the face and ears than elsewhere. Between the tubercles the skin was much thickened, in some situations hanging in folds, especially where it is loosely attached, as, for instance, below the lower lids. The natural wrinkles over the face were exaggerated into deep furrows. The tubercles over the eyebrows, nose, and ears were more prominent and larger than elsewhere, and with the thickening and wrinkling of the integument gave to the face the lion-like expression so characteristic of leprosy.

The following are, in brief, the clinical histories of the three cases:

1. F. A. is now twenty-four years of age. In the autumn of 1885, while apparently

in perfect health, he assisted his brother and sister in removing their damaged effects from the flooded cellar. On the evening of the second day, while drying himself before the fire, he observed a number of blisters on the lower and outer half of the left leg. The subsequent course of the disease corresponded in almost every respect with the general description just given. In this case the disease continued to advance for two years, during which the patient was quite ill and suffered considerably with pain in the parts affected. About the beginning of 1890 the general cutaneous hypertrophy began to diminish, and sensation reappeared in many situations which hitherto had been anesthetic. The general health of this patient is at present excellent, and he is quite sanguine of his ultimate recovery.

2. R. A., seventeen years of age, and a younger brother of F. A., was affected at the same time and in the same manner as the elder brother. Bullæ filled with serous fluid appeared on the external half of the left leg, chiefly over the ankle and knee, which after drying became white maculæ. These spots were devoid of sensation. The disease soon appeared on the face, then on the trunk, and finally on the upper extremities, pursuing the same course as in Case 1, except that the general health was more seriously impaired.

3. A. A., twenty years of age, a sister of the two young men, worked with them in the stagnant salt water, and like them had an eruption of bullæ on the outer surface of the left leg. These gradually dried up, leaving in their places white patches which were so devoid of sensation that a needle could be passed through the skin without causing the slightest pain.

*Status Presens.* The patient is slender and somewhat emaciated. The chest is flat and contracted, and for some time past the patient has had cough with evening fever. Her general appearance is that of a person well advanced in phthisis.

This is the only instance on record in this country, the speaker said, in which leprosy has attacked three members of a family at the same moment. All three had worked in stagnant salt water for two days, and were simultaneously attacked while drying themselves before an open fire, and in each case it was the left leg that first presented evidences of the disease, and invariably on its external aspect. Whatsoever the remote cause of the disease may have been, no one will doubt that in these cases the exciting cause was heat acting upon skin which had been previously softened and perhaps irritated by continuous immersion in salt water.

**PULMONARY TUBERCULOSIS AND MALARIAL FEVER.**—There is probably no mistake in clinical medicine so common as that of confounding pulmonary tuberculosis and malarial fever. The latter is not often mistaken for the former. Though no harm might result, the error would still be a culpable one. But careless observation and criminal want of physical investigation have unfortunately in too many cases led to a diagnosis of malarial fever when a grave disease of the lung existed. In such a case the error would be a fatal one, especially in view of the relative success with which, in judicious hands, cases of incipient tuberculosis are treated. "Malaria" has been made to serve as a diagnosis in many an obscure and anomalous febrile condition, but in no single one more disastrously than in pulmonary tuberculosis.

There is a period in the history of tuberculosis of the lungs when there may be reasonable diagnostic doubt, but a little patient waiting, with careful observation, thorough physical exploration, judicious therapeutics, and above all examination of the blood and of the sputum, in accordance with modern scientific methods, will set all doubts at rest. There can be no excuse for error, if any of these means of diagnosis are neglected.

The greatest difficulty, however, is encountered in cases in which, on repeated investigation, neither the evidences of tuberculous disease of the lungs are to be detected in the sputum nor the evidences of malarial disease are to be detected in the blood. In such cases importance is to be attached to the family history, to the hygienic surroundings, to the symptoms, and to the course of the disease, and, finally, to the results of treatment. Negative evidence can never be so valuable as positive evidence. Then there are other cases in which malarial infection is only too evident, but in which observation and examination would disclose the simultaneous existence of tuberculosis of the lungs. In the light of increased knowledge we can no longer maintain that malarial disease and tuberculous disease can not coexist.

The lesson to be derived from all this is that the practitioner dare never, in any case, permit the possibilities of combination to escape him. In all obscure cases every line of investigation must be pursued to its ultimate refinements, and not an organ or system should escape the closest scrutiny. The medicine of the future must be alert, anticipating disease, preventing its development when possible, and stamping it out in its incipency.—*Philadelphia Med. News.*

**ARSENITE OF COPPER.**—My attention was first called to the preparation in the issue of the New York Medical Journal of August 16,



1890, in the letter of Dr. Branch Clark, who said that he had not lost a patient with cholera infantum since he began its use, and that he used it in cholera infantum, cholera morbus, and dysentery, with uniformly good results.

I will give you briefly some of my experience with the preparation. I would say, first, that in cases of cholera infantum and cholera morbus it very often relieved the vomiting before it relieved the diarrhea.

The first case I tried it on was that of a bottle-fed child, aged six months. It was taken with fetid diarrhea, the stools being of the "frog-pond" variety. I first gave fractional doses of calomel, followed by bismuth subnitrate and pepsin, without any relief, the diarrhea continuing for two days. I then dissolved a tablet containing one one-hundredth of a grain of the arsenite of copper in four ounces of water, and ordered a teaspoonful to be given every ten minutes for an hour, then every hour until the patient was relieved. I heard nothing of the child for two or three days, and, on inquiry, the parents said they feared the diarrhea had been checked too suddenly, as the child had not had a passage after they began the last medicine until that morning. They had thought of giving it a dose of castor oil, the bowels having been checked so suddenly.

I gave it to another child, aged twenty-two months, that had been given homeopathic medicines for several days without benefit, and was vomiting and purging about every half hour or hour, when I was called. I gave it the same dose in the same way as in the other case. The child did not vomit any more, and the bowels moved only three times in fourteen hours after the first dose was taken; after that the bowels moved normally.

Another child, aged twenty-one months, had been treated for diarrhea for about two weeks; the passages had numbered twenty-two in the twenty-four hours preceding the time I first saw it. I gave it the arsenite of copper in the same way, and the child was relieved without further trouble.

A few weeks ago, during one night and the next day, I treated ten severe cases of cholera morbus with the arsenite copper. The youngest patient was a lad of ten, the oldest a man of about sixty-five years. The lad was vomiting and purging violently when I reached him. I tried at first to give him bismuth subnitrate, but it failed to relieve the nausea and vomiting, and he had to rise every few minutes on account of the purging. I then gave him the arsenite of copper in the above-mentioned dose, and his nausea and vomiting were relieved after the first dose; the bowels moved only twice after the first dose was taken.

Another patient, a man aged about fifty, was vomiting and purging very violently; I gave him the arsenite of copper in the above-named dose, and his vomiting was relieved at once and the purging very quickly. This man had weighed himself the evening before, and found his weight to be two hundred and sixteen pounds. The next morning, after the attack of cholera morbus, he again weighed himself and found he had lost seven pounds and a half during the night.

In the other cases I gave the arsenite of copper in the same dose alone, with uniformly good results. In all these cases I found the arsenite of copper would relieve the soreness of the bowels in a very few hours. I have tried the remedy in one case of chronic diarrhea, where all the remedies I had given before failed to give relief. The man was very much emaciated, and since taking the copper arsenite has gained very much in flesh and strength. I gave him the one one-hundredth of a grain at a dose, repeated every three or four hours.

I certainly can bear testimony as to the value of the arsenite of copper in my hands in all cases of acute diarrheal disease.—*Wm. J. Burd, M. D., N. Y. Med. Journal.*

**LAPAROTOMY IN PERITONITIS.**—Dr. Krecke, of Munich, has collected from various sources the results of laparotomy in diffuse purulent peritonitis, and points out that the operation has been the means of saving many lives; for, although the statistics of peritonitis treated medically show a mortality considerably below that given by laparotomy, it is clear, as he says, that a large majority of the successful cases in the first category are such as would never be submitted to surgical treatment, many of them being referable to inflammatory lesions of the female pelvic organs, and not of an infective kind. Surgical intervention is, on the other hand, called for in cases of general infective peritonitis, such as arises from perforation or in the puerperal period, or from extension of suppuration from other parts. Dr. Krecke points out the difficulties of securing effective drainage, and is averse to irrigation, owing to the possibility of its disseminating septic material to parts of the membrane not previously infected, or of exciting hemorrhage. He prefers rather a simple incision, drainage, and the use of iodoform gauze. Peritonitis is fatal from septicemia due to the absorption of poison from the cavity; but it is remarkable how tolerant the membrane may be of such virus. If the limit of this tolerance could be gauged, some guidance might be obtained as to the appropriateness of surgical interference in any case. But the fact is that there are various degrees

and forms of acute peritonitis, some being fatal from septic absorption within a few hours of the onset, before even any noticeable change takes place in the membrane itself. Early operation is then called for, and consideration must also be had to the source of the inflammation. Dr. Krecke's statistics are interesting and instructive. He has collected 119 cases of laparotomy in general peritonitis, the origin of which was determined in all but 18, of which 9 were successfully treated by laparotomy, and 9 died. The majority of the remaining 101 cases belonged to the category of perforation-peritonitis. Of these 36 were cases of general peritonitis following perforation of the vermiform appendix; 12 were cases of typhoid perforation (a condition which at first sight it might seem hopeless to deal with), and these yielded 5 successes; 12 were due to perforation from gangrene and other causes implicating the bowels. Of the gangrenous not one recovered, and of the 8 others only 3 were cured by the operation. No case of perforating ulcer of the stomach has yet been saved, a result precisely the same as that yielded by medical treatment. Of traumatic cases, 3 of punctured wounds and 1 of gunshot were recovered; but of contusions only 3 out of 8 cases recovered from laparotomy. The measure, however, saved 5 out of 13 cases of puerperal peritonitis. Lastly, a group of cases of peritonitis from various other causes gave 3 deaths and 6 recoveries. The total result is 119 cases of general peritonitis treated by laparotomy, 51 recoveries and 68 deaths, statistics which are certainly encouraging.—*London Lancet*.

**A CASE SIMULATING SYRINGOMYELIA.**—In the last number of the *Archives de Neurologie*, Professor Charcot has described a case which is interesting because of the resemblances which it bears to syringomyelia—resemblances which were so strong as to have induced the physician who had formerly seen the case to send it to the Salpêtrière with this diagnosis. The patient was a young man of twenty-two, who had been shot in the back of the neck four years ago. A cicatrix remained, one centimeter from the middle line at the level of the seventh cervical vertebra. He had at the time of the accident paralysis of the right arm and leg, which, however, soon passed off, and in a few weeks he was able to resume his ordinary work as a baker. Three years later, while lifting a heavy weight, he experienced sudden and severe pain between the shoulders. Next day he had slight weakness of the right leg, and the right arm and hand soon became weak, and the small muscles commenced to atrophy. An accidental injury a few months later revealed to the patient the

fact that he was not sensitive to pain on the inner side of the right arm. When he came under observation there were weakness and wasting of the muscles of the right hand and forearm, analgesia, and heat over the inner side of the forearm and upper arm (parts supplied by nerves from the first dorsal) impairment of sensibility over the left side of the trunk and the left leg, and in the lower limbs weakness with exaggerated reflexes. There were also recession of the right eye and contraction of its pupil. After a most interesting discussion of the points for and against syringomyelia, the conclusion was come to that the symptoms of the case, although presenting a very strong resemblance to those of syringomyelia, were really the result of the old injury and the subsequent strain, and were dependent upon a condition at the level of the first dorsal nerves, the eye symptoms having been due to an affection of the cerebro-spinal center. A note is added describing the condition found on operation, viz., rugosities of the laminae, which by pressure on the nerve would account for the upper limb condition, but not for any lesion in the canal itself. The patient's condition was not materially altered after the operation.—*Ibid*.

**THE DIPHThERIC POISON AND ITS MECHANISM OF ACTION.**—The treatment of diphtheria should have a scientific basis in the bacteriological discoveries concerning the etiology of the disease. Oertel (*Gaz. Med.*, June 6, 1891) has inoculated the muscular tissue of animals with diphtheritic membrane, and has seen them die in thirty or forty hours. The lesions found after death consisted in hemorrhagic inflammation of the muscles, infiltration of the viscera with round cells, and hemorrhages into the serous membranes. The bacilli of diphtheria were not found in the tissues and organs of the animals experimented upon. Hence Oertel concluded that in cases of generalized diphtheritic infection the virus is not found in the tissues and organs by the pathogenic bacteria; that it comes from without, and that having entered the organism it is produced by fermentation, by fission, and by the metamorphosis of certain organic combinations. The effects of the poison are always the same in character, hence there can not be a local infection and a general infection. The manifestations of diphtheritic poisoning vary according to the quantity and the intensity of the virus which has impregnated the organism, also according to the situation and structure of the organs involved. Everywhere the first effect consists in the death of the cells. The second consists in the formation of hyaline matter at the expense of the cells, the connective tissue, and



the muscular substance. Wherever the action of the diphtheritic poison is incomplete, one sees inflammatory reaction. In the superficial tissues this reaction follows migration of leucocytes into the epithelial cells, and poisoning of these elements. Analogous effects are produced in the deeper structures. When a focus of necrosis is contiguous to epithelium, the contents of the latter are diverted to the surface and become a false membrane. The return of the tissue to a healthy condition is due to elimination of all necrotic matter, and to an exudation of fibrinogenous lymph. When the virus is carried to the deeper portions of the mucous and submucous tissue by the cells suspended in the fluids, it causes other foci of necrosis, which fuse with the superficial ones, and gradually infiltrate the tonsils, uvula, and velum palati. If no specific bacilli are developed in these false membranes, the virus, in consequence of chemical changes which take place in the tissues, will quickly lose its pathogenic activity. In the cervical and bronchial glands the virus produces the same necrotic changes as in the epithelium and mucous membrane of the pharynx. The same thing occurs in the spleen, stomach, intestine, and mesenteric glands. In cases in which the disease had followed an acute course the lungs, heart, liver, and kidneys showed no characteristic changes. They were simply the seat of inflammatory, hemorrhagic foci and collections of round cells. From the penetration of the virus into the circulatory current the structure of the vessels was changed, and there were characteristic hemorrhages into the pleura, pericardium, peritoneum, the serous covering of the liver, etc.

Oertel's statements relative to the organic nature of the diphtheritic poison have been confirmed by Loeffler, Roux and Yersin, and Brieger. Roux and Yersin have proposed the carbolic-acid treatment upon the basis of the discovery of the diphtheritic poison. Oertel approves of this substance as a means of treatment, only he prefers to use it in the form of inhalations, a five-per-cent solution being inhaled every hour or every two hours. By this means the entire mouth may be impregnated and disinfected, and the specific bacilli at the surface of the mucous membrane destroyed.—*Archives of Pediatrics.*

**DEATHS UNDER CHLOROFORM.**—Among recent additions to the appalling records of deaths under chloroform the following offer facts the study of which can not but point a moral. In the first case, the patient, aged thirty nine, of Tranmere, suffered from external piles, which caused him great suffering.

Upon two occasions previously he had undergone operations for their relief; presumably, although this is not stated, he then took anesthetics. On Tuesday, October 6th, a medical practitioner was called in, and decided to operate on the following morning. The patient expressed a wish for chloroform, which the surgeon himself proceeded on the Wednesday morning to administer, but without calling in any other surgeon to assist him. Although, according to the practitioner's account, the man took the chloroform very well, he appears to have suddenly succumbed. The account states that the surgeon had to resort to artificial respiration. His efforts were, however, futile, and the man never revived. The medical man is reported to have said he did not intend to push the chloroform beyond obtaining an analgesic effect, and considered the patient fit subject for the anesthetic. The coroner asked the surgeon how it was that he undertook the grave responsibility of giving chloroform and performing an operation single-handed. It was said that at 11 A. M. in the morning it was almost impossible to obtain assistance, as all the medical practitioners were out visiting their patients, and that the patient was in such agony that delay was out of the question; and, secondly, that the poverty of the patient was such that no fee could be obtained for an anesthetist even if such a person had been procurable. The coroner and his court exculpated the practitioner from all blame as far as the actual administration of the chloroform went, but expressed regret that so serious a matter as a human being's life should have been weighed in the balance with a *non-possumus* of help and the question of an additional fee. We, who know the serious responsibility a medical man is called upon to undertake when he administers chloroform, willingly extend to the surgeon who had charge of the case our sympathy in the accident which has happened to him, but we can not help feeling that no one is justified in undertaking such a responsibility single-handed. There are hospitals for persons who can not pay medical charges, where a competent staff are ready to undertake just such cases as that to which we are referring, and it seems to us to have been an error of judgment that the surgeon in charge of the case did not, when called in on the evening before the operation, arrange either to obtain help or to send the patient to the nearest hospital. No one can do justice either to his patient or himself by attempting the double rôle of chloroformist and operator, and this can not be too well recognized. In the second case, in which the death occurred at West Bridgeford on October 8th, a lad of eleven years was chloro-

formed by a medical man in order that a dentist might remove three teeth. We are simply told that the patient died during the operation. Surely, after the painful frequency of deaths during dental operations when chloroform is administered, a stop should be put to a practice which invests a trivial surgical procedure with a danger quite out of proportion to results obtained. It may be said many of these deaths are due to insufficient anesthesia, and there is no doubt that there is much in such a contention, but since forty odd years have not made our chloroformists so expert as to insure every possible danger being avoided, it is surely desirable to protect the public by substituting for chloroform in trifling operations nitrous oxide, which is comparatively free from danger, and is now most readily procurable. In contrast to these two cases we have to record a death which took place at the Sydney Hospital, when, as one of the surgeons present remarked, "more than usual care had been taken in the administration of the chloroform." The anæsthetists spoke of an experience of many thousand cases during ten years without a casualty. On the occasion of which we are writing, the patient, a man of thirty-three, had been carefully examined and prepared for the anæsthetic. Two or three minutes after the commencement of the chloroform the patient grew excited, and some muscular spasm occurred, which soon passed off. The face then grew livid, and the pulse failed, although respiration remained normal. Restorative measures were used for an hour without success. The necropsy showed heart lesions which could not, it was stated, have been recognized before death. The method employed was to drop chloroform on a flannel cap stretched over a wire frame and hold this some little distance from the mouth, and so secure a full dilution of the vapor.—*London Lancet*.

**CEREBRAL ACETONEMIA.** — Talamon, in an interesting paper, states that a group of nervous symptoms comparable to those of uremia has been described under the name of acetoneuria, a condition characterized by a reddish color imparted to the urine on the addition of perchloride of iron, and by the peculiar acidity of the breath, which exhales an odor that has been compared to that of chloroform, and which in reality is the odor of acetone or of ethylacetic acid. Various observers have concluded that the nervous symptoms were due to acetone acting upon the organism in the same manner as chloroform. The precise pathogeny of this toxemia, however, has not been chemically elucidated any more than has that of uremia or cholemia. The substance of which the

perchloride of iron causes the red reaction in the urine may be ethylacetic acid (Gerhardt) or diacetic acid (Jaksch). The symptoms of poisoning may result, not from the isolated action of one of these substances, but from a series of chemical decompositions, of which the acetone and diacetic acid are but ultimate products of little importance. Acetonemia has especially been observed in diabetes and in diabetic coma. Petters and Kaulich have, however, noticed that the odor of the breath and the reaction of the urine are observed not only in diabetics, but also at times in the course of the eruptive fevers in children with measles and scarlet fever. The researches of Jaksch have confirmed this observation, and have shown that normally the blood and the urine always contain traces of acetone, the quantity of which may be increased in the exanthemata and in different chronic maladies, particularly carcinoma. Jaksch recognizes three varieties of acetoneuria, the diabetic, the febrile, and the carcinomatous. According to him the nature of the febrile process is a matter of indifference. He has noticed this system in pneumonia, in typhoid fever, in acute articular rheumatism, and in eruptive fevers. He has even observed pronounced acetoneuria in a case of mania without fever. Acetonuria or diaceturia may thus exist without acetoneuria; in other words, the red reaction of the urine with the perchloride of iron may be produced in the absence of symptoms of acetone toxemia. Talamon relates the case of a girl of fifteen with a history of an attack of acute articular rheumatism with endocarditis. On the fifth day the temperature reached 105.8°, and the girl presented a condition of marked nervous excitement and delirium, this being characterized by incessant agitation and terrifying hallucinations, and accompanied by an odor of acetone in the breath and a ruby red reaction of the urine with the perchloride of iron. The delirium lasted five or six days and disappeared synchronously with the disappearance of the odor of acetone in the breath. From a study of the case reported, and from a review of the literature of the subject, Talamon concludes: (1) Certain of the nervous phenomena that appear in the course of acute febrile diseases may be attributed to acetoneuric intoxication. (2) The acetoneuric phenomena are characterized by the peculiar odor of acetone in the breath and the ruby red reaction that the urine presents with the perchloride of iron. (3) The delirious acetoneuria of articular rheumatism may simulate cerebral rheumatism, from which it is to be distinguished by the absence of hyperpyrexia and by the characteristics of the urine and of the breath *Ibid*.



**CARBOLIC ACID, CREOLIN, AND LYSOL** — From *Revue D'Hygiene* we extract the following notes on the work of Drs. Remonchamps and Sugg, relative to the comparative disinfecting values of carbolic acid, creolin and lysol. The last is a comparatively new addition to the list of disinfectants. The result of various studies of creolin were given in the Fifth Annual Report.

The authors used the bacilli and spores of anthrax, of typhoid fever, and of cholera in their provings. On the free spores the agents all act slowly; creolin and lysol act a little more promptly than carbolic acid on cultures in bouillon, but the difference would not amount to much in practice. There is, however, an important element of safety, due to the difference in the poisonous properties of these agents. While it took only 0.30 gram of carbolic acid to kill a given weight of rabbit, it required 1.10 of creolin or 2.30 of lysol.

One interesting point brought out is that spots on clothing soiled with fecal discharges of typhoid fever and cholera patients may be completely sterilized in two hours in a one-per-cent solution of any one of these agents cold, but if warmed to 122° F. the sterilization is complete in thirty minutes.

With lysol disinfection of the hands and instruments was accomplished with a five-per-cent solution in five seconds, especially when warm; with two-and-one-half-per-cent solution ulcers and cavities were disinfected in five minutes.

Lysol is a thick, light brown liquid with a specific gravity of 1.042. It is perfectly soluble in water, and forms a clear solution in contradistinction to creolin, which forms a milky opaque emulsion. In washing in a solution of lysol it form a lather, and thus, while exerting the action of a disinfectant, it plays the part of a soap. It therefore has the advantage of easily and rapidly permeating tissues with which it is brought in contact.—*Sanitary Inspector*.

**THE BEST LOCALITY FOR ABDOMINAL PARACENTESIS.**—In Germany paracentesis is generally performed at what has been styled Monro's point—that is, the center of a line drawn from the umbilicus to the left anterior superior iliac spine. The choice of this locality is not quite without danger, the epigastric artery having been several times injured, occasionally with fatal results. Dr. Trzebicky publishes in the *Arch. für Klin. Chir.* a recent case of injury to the epigastric artery, in which, having no instruments at hand, he was only able to prevent death from hemorrhage by compressing the iliac artery with both fists. This case in-

duced him to examine a number of subjects, with the result that in several of them he found Monro's point directly over the epigastric artery or one of its branches. It is consequently far safer to puncture in the linea alba or exteriorly to Monro's point. When the linea alba is chosen, it is very necessary to insert the trocar exactly in the middle line, as occasionally an arterial twig runs along the edges of the linea alba, and in at least one recorded case has been injured with a fatal result. Dr. Trzebicky recommends, in cases of serious loss of blood from the paracentesis, the application of a tampon of iodoform gauze, and if this is not sufficient, subcutaneous or direct ligature. *London Lancet*.

**OPERATIVE TREATMENT OF PERITONITIS.**—Dr. J. F. W. Ross (Canada Lancet) concludes,

1. That in typhoid-perforation operation is useless.

2. That in traumatic general peritonitis, and in all cases of general peritonitis, the abdomen should be opened, washed out, and drained, and the cause of the peritonitis found and removed.

3. That in cases of localized peritonitis, and in obscure cases of injury not followed by general peritonitis, it is better to follow an expectant plan of treatment, unless abscess formation can be made out.

4. That in all cases of abscess formation opening and draining will give the most rapid convalescence, and will prevent unfavorable rupture in other parts.

5. That in view of the complications that may be found after opening the abdomen, the best interests of the patient will be consulted by having the operation done by some one accustomed to do abdominal surgery.

**IODOFORM INJECTIONS IN GOITRE.**—Dr. Kapper, an Austrian military surgeon, has employed in fifteen cases, with invariable success, Mosetig's plan of injecting iodoform emulsion into soft thyroid tumors. In every instance there was a diminution in the circumference of the neck amounting to from 8 to 10 cm. Antiseptic precautions were employed, and in some cases where the tumor was of considerable dimensions several syringefuls were injected into different parts of the parenchyma. In order to ascertain whether the needle has entered the gland the patient is asked to swallow, when, if it has so entered, the downward movement of the syringe shows that the needle has been carried upward. In some cases the injections were repeated daily for several days, in others at intervals of a few days. In no cases were any untoward symptoms produced.

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## AGAINST QUACKERY.

Twenty gentlemen met Dr. J. N. MacCormack, Secretary of the State Board of Health, on Wednesday, November 25th, to discuss the law regulating the practice of medicine in Kentucky, and its enforcement in this city. After listening to various speeches on the existing state of affairs, it was resolved to call a meeting of the whole profession the following Tuesday night to effect a permanent organization and to take active measures leading to the suppression of empiricism, which thrives and flourishes here to a remarkable extent. Pursuant to a circular issued, about sixty physicians met. Dr. J. G. Cecil was elected permanent chairman, Dr. I. N. Bloom secretary, and Dr. William Cheatham treasurer. Committees were appointed from each ward to solicit subscriptions, those present having already pledged themselves liberally. The object of the meeting was stated, and the law was read and explained briefly. The law reads, that a graduate of a chartered medical college of this State is entitled to practice without registration, and a graduate of a reputable medical college from any other State must submit his diploma for indorsement to the State Board of Health, in order to secure registration in the county clerk's office. The Board of Health can refuse regis-

tration to traveling empirics, and can revoke the indorsement of the applicant who has moved into another State.

Dr. MacCormack said that we have a more powerful and more efficient law in the State than most of us think. Within the last few months he had met with difficulties in enforcing the law in Louisville, and therefore he was very glad to meet the Louisville physicians, to see if they could devise some means to make the law work as well here as it does in places outside of Jefferson County. In other places in the State empirics have been prosecuted, and in most all cases successfully. In a few cases where convictions were not obtained, through lack of sympathy of the locality, these people generally afterward complied with the law. The shrewdest men in the world are the traveling empirics. He has been deceived in such but three times, and then he indorsed on the recommendation of county societies and their officers. Such great care has been used in inquiring as to the propriety of the indorsement by the State Board of Health, that good, reputable physicians have been compelled to wait three months before they were given the right to register. There are some weak points in the law which were not in the original draft of the bill, which gave originally to the Board the power to revoke indorsements, and to the medical schools the power to withdraw permission to practice on a diploma in this State. In going over the county register in this city he found the administration of the law to be particularly faulty. There were more specially improper registrations in the beginning. The very worst class of bogus diplomas have been registered. Some of these had not been indorsed at all, and some from miserable schools had been allowed to be registered on the indorsement of men who under the law had no such right to indorse. Nearly all the empirics in Louisville are those illegally registered. An imperfect list of these was read, and the lack of the proper administration of the law was made clear to all. Dr. MacCormack afterward cited cases of successful prosecution of those failing to comply with the law in Bowling Green and in other counties throughout the State. Some of these, who had been convicted elsewhere in the State, had



moved to Louisville, and are successfully perpetuating their fraud upon the people here. The law can and should be carried out to the letter, and for this reason Dr. MacCormack had desired to meet the profession informally, to devise means to that end. Dr. William Bailey, of Louisville, of the State Board of Health, had assisted him as much as possible, in view of the illegal registration that had been allowed. After speeches had been made by Drs. Wathen, Bailey, Mathews, Blackburn, Griffiths, Bloom, and others, and, as stated, a committee had been appointed to solicit subscriptions, to which those present responded liberally, a committee was appointed to confer with a prominent lawyer, to whom the above facts were laid bare. This committee reported back at the second meeting of the profession, and the employment of the lawyer was approved of. The legal gentleman had no doubt of his ability under the law to convict the quacks, and vigorous prosecution can be looked for in the near future. The meaning of the law was explained.

The thanks of the profession are due to Secretary MacCormack for his active, unselfish efforts in the suppression of quackery. His success in other counties has been very marked, and the salutary effect of convictions in Jefferson County will materially diminish his labor elsewhere in the State. [B.]

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### Notes and Queries.

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PROF. VIRCHOW ON CELLULAR PATHOLOGY. To the current number of his *Archiv*—the first of its 126th volume—Prof. Virchow contributes an article upon the position of the doctrine which is linked with his name, viz., cellular pathology. He says that he felt impelled for several reasons to discuss this topic. One of these was the fact that the above journal, founded forty-four years ago, was in its first decade largely concerned with the development of that doctrine in all its manifold bearings, and that it has continued ever since to be a medium of the exposition of the fact that our conceptions of morbid processes must be founded upon a histological basis. Another potent reason for his present review of the subject was

that he was on the eve of reaching that term which has been from of old accepted as completing the natural span of human life; so that his personal share in promoting the teaching identified with himself and the *Archiv* could not be of much longer duration. The great international gathering at Berlin, and a reperusal of the transactions of that Congress have also had their influence in turning his thoughts in this direction to endeavor to find what common foundation underlies the vast amount of individual inquiry which such a collection of work exhibits. Has there been any real advance made in root principles at all commensurate with the enormous progress effected in every department of practice? It would seem rather as if there were a tendency to ignore these principles, so that the study of general pathology is becoming less cultivated, and the grasp of it more lax, and this in proportion as achievements in practical matters are deemed to be the highest qualifications of the physician or surgeon. Prof. Virchow does not hesitate to hold specialism responsible for this narrowing of ideas, and he thinks it has reacted injuriously upon general training in medicine. Nevertheless, he is hopeful that the pursuit of specialism will in the end cause a reaction toward a better conception of the medical art, and the recognition that he is the most useful practitioner who can turn his knowledge of general principles to account in particular instances. As an illustration of his meaning, he says that when a special topic is being exhaustively discussed most of the speakers deal, not with pathological processes as such, but rather with their results and causes alone. The more difficult matter of explaining the nature of the morbid lesions is shelved, or facts which could only be gleaned by arduous investigation are set aside in favor of some hypothetical explanation of an alleged cause. Hence such phrases as "hyperemia," "stasis," "pressure," "transudation," "malnutrition," "dyscrasia," and the like, are given greater prominence than the conditions underlying them. This he deems to be the outcome of empirical methods of education, for they are terms which are thoroughly eclectic and arbitrary. In the use of such language and the mode of thought which it implies,

he sees the same tendency at the present day to arbitrary generalization as characterized the speculation of the past. Humoral pathology, the more modern mechanical and chemical views, and bacteriology itself, have all added their quota to this imperfect and irrational method of interpretation. Indeed, the declaration at that Congress by the first of all bacteriologists, that in most of the acute specific diseases no bacteria are to be found, or at least none which could be held to be the excitants of the disease, must, he says, have come like a thunder-clap upon the modern student who has been encouraged to believe that all such diseases are caused by bacteria. So, again, the experience that exudation is usually preceded by hyperemia favored the simple explanation that increased blood-pressure causes exudation; but there was no explanation here of the undoubted concurrence of hyperemia and heightened pressure without exudation. From the time of Harvey the action of the heart and blood-vessels has been considered the main agency in vital processes; and it is surprising how in later days so great an influence in disease has been assigned to alterations in blood-pressure. The newer development of humoral pathology sought to find in the circulating blood the key to all nutritive disorders, and this notion, which availed itself of the old formulæ, was the starting-point of modern eclecticism, from which our conception of vital action has not yet entirely escaped. In formulating his hypothesis of cellular pathology Virchow endeavored to get at the root of all vital activity, and he reminds us that his point of view differed from that of Schwann, who sought to explain the formation of cells rather than their functions. Virchow started with the idea that every cell arises from a pre-existing one, and that only such tissue could be considered endowed with life which was composed of cells; and, having this conception, he was led to emphasize the essential importance to medicine of a study of cell physiology and pathology.

There runs through this article a strain of disappointment at the apparent neglect with which this doctrine has been treated. It may or may not be warranted, but we should like to assure the veteran pathologist that this indif-

ference to what must always be regarded as the basis of all pathological inquiry is more apparent than real. The fact is, we believe, that "cellular pathology" is not spoken of now because it is almost taken for granted. It is so eminently reasonable and so obviously a deduction from the facts of anatomical research that it is difficult to conceive of its being wholly discarded. He does well, however, to remind us that there is a vast difference between the standpoint of those who look to the cell elements of the body as being merely passive objects for the operation of blood or nerve, and of those who regard them as not in themselves endowed with active properties which are essential to the maintenance of the life of the organism, and the derangement of which constitutes disease. It is this distinction between the activity and passivity of the tissues which, he avers, has failed to be grasped even by distinguished physicians, and yet it is one which should dominate our whole conceptions of the causes and even of the treatment of disease. For the recognition of cell action requires that nutrition shall be held to be not a mere matter of cardiovascular action, of quality or quantity of blood, or of blood-pressure, but a process dependent rather on the special stimulation of the cells themselves. Variations in nutrition are to be met with in different individuals; indeed, in the same subject at different times. One organ may atrophy, another hypertrophy from the same nutritional disorder. The formation of new cells and his doctrine of proliferation have, however, been the points which have been most vigorously attacked, but he maintains them steadily, and contends that they were unaffected by Conheim's discovery of leucocytal emigration. Hence it was with peculiar pleasure that he found the speakers at the Pathological Section of the Berlin Congress of 1890 relegating the leucocyte to its indifferent position, and once more speaking rather of "proliferation" than of "transudation" or "infiltration." Nevertheless, he thinks the reaction may go too far; for, as he says, in abscesses and allied processes there is ample evidence of a true infiltration apart from any new formation of cells. In the modern researches in karyokinesis he sees an extension of the cell



doctrine without effecting any change in its standpoint. So, too, he claims that bacterial pathology is quite consistent with cellular pathology. Virchow himself long since urged that it was not bacteria, but their virulent products that caused diseases; and he also expressed the opinion that infective disease may consist in a struggle for existence between cells and bacteria, an idea which has been so remarkably illustrated in the "phagocytism" of Metchnikoff. Much has yet to be done in this subject. It may be that phagocytes do not indeed exist, but their non-existence would not destroy the cell theory. For if the alternative hypothesis of Buchner be true, viz., that it is the blood-serum that is the bactericidal agent, it may owe this property to cell changes; or if to external sources, then cellular pathology would not enter into the question at all. It is unlikely that cell action plays no part in the production of the bactericidal poison; but, should it be so, it would not affect the fundamental doctrine. For the characteristic lesions of infectious disease all testify to the fact that bacterial action is exerted on the tissues rather than on the blood; and the study of these tissue changes, recognized long before bacteriology entered the field, may still be objects of investigation when etiological problems are all solved. It would seem, says Prof. Virchow in conclusion, that the ultimate aim of cellular pathology is the localization of disease, the determination of the particular parts which are selected for separate morbid actions; and this leads by but a small step to local therapeutics, which means nothing less than a revolution of the old lines of treatment. This revolution is hastening on; it is being promoted by distinguished physicians; and it is not only the direct outcome of a cellular pathology, but it will advance under its protection in spite of all attacks that it may be exposed to. Therefore he trusts that the *Archiv* may continue to maintain its position in the world, in pursuance of the work it commenced, and in prospect of steady progress in the knowledge of morbid action.—*London Lancet*.

KOCH'S FURTHER COMMUNICATION ON A REMEDY FOR TUBERCULOSIS.—The Cincinnati

Lancet and Clinic gives the following review of this much-talked-of topic:

In the *Deutsche Med. Wochenschrift* for October 22, 1891, there appears a communication from Professor Koch detailing for the most part further attempts to isolate the active principle of tuberculin. All of our readers know that the chemical nature of tuberculin, as at first proposed, was very complex, and much doubt existed as to just what ingredient was the one to which to ascribe the active symptoms induced. The result of Koch's later investigations has been that he has succeeded in eliminating the active principle, and has found it to be albuminoid in nature. Apparently it is neither an alkaloid nor a ptomaine. The substance is exceedingly difficult to isolate in a pure condition, as it very readily undergoes chemical change. The investigations have been very carefully conducted, for the author has been careful to ascertain, after each chemical step taken, that the active principle was still present and active. In each case the author has endeavored to give to the animals experimented on a dose sufficient to produce death. He used 0.5 of a gram of tuberculin for an injection, and was thereby enabled to determine whether the entire active principle was present or not. If this injection (0.5 of a gram) produced death, he was certain that all of the active principle was present; if death did not ensue, he judged that the whole or part of the activity was absent. It was found from these experiments that death occurred in from six to thirty hours, according to the degree of tuberculosis present in the animal.

Some characteristic features were noted as the result of the injections. The area surrounding the point of injection was reddened, often dark, almost violet in color; the neighboring lymphatics were congested; numerous ecchymotic-looking spots the size of hempseed were found upon the surface of the liver and spleen. These spots were not extravasations, but were due to the enormous distension of the capillary vessels in the vicinity of tuberculous masses; it is essentially a condition of stasis. True extravasations were extremely rare. The same changes were found in the lungs, but to a much less extent. The mucous membrane

of the small intestine showed diffuse redness. The most characteristic feature due to the action of the remedy is that found on the surface of the liver. This is best seen in animals which had been inoculated with tuberculosis four or five weeks previous to the administration of the agent.

It is scarcely advisable for us to detail the various unsuccessful methods used in the endeavor to isolate the active principle. Sufficient it is to say that Koch invited Proskauer and Brieger to attempt the isolation, and that their attempts all resulted in failures. The method finally adopted was to mix ten parts of tuberculin with fifteen of absolute alcohol. The mixture was stirred and allowed to stand for twenty-four hours. A white flaky precipitate was thrown down from the dark-brown fluid. The supernatant fluid was then poured off and sixty per cent alcohol was added, the mixture being stirred and then allowed to settle. This was repeated until the supernatant alcohol remained almost clear. The precipitate was then washed several times with absolute alcohol. The whole was then filtered and the filtrate dried, when it appeared as a light-gray powder.

The deposit obtained by the above method may be regarded as almost pure. The quantity obtained is about one per cent of the tuberculin.

Purified tuberculin has the following characteristics: It is pretty soluble, especially when rubbed up in a mortar with water; a watery solution soon loses its activity, for it becomes perceptibly weaker in a few weeks. Evaporation causes loss of activity very soon. When dried at a high temperature it loses part of its solubility.

If purified tuberculin is not very carefully prepared and preserved, it retains a small quantity of insoluble substance, and does not give a clear solution. The addition of sufficient sodium carbonate to produce an alkaline reaction brings every thing into solution.

When the solution is made in glycerine it is found to be very stable, and the activity is retained indefinitely. If chloride of sodium is added, the tuberculin is completely precipitated, a single drop of sodium chloride being

sufficient to bring about complete precipitation of tuberculin from several hundred cubic centimeters of alcohol.

The characteristics of pure tuberculin, together with its chemical reactions, seem to indicate that it is an albuminoid substance. It differs from the abumoses and toxalbumins in that it withstands very high temperatures. From peptone it differs in many respects, but especially in that it is easily precipitated by acetate of lead.

The purified tuberculin was administered in doses of from two to five milligrams, to Drs. Kitasato, A. Wassermann, H. Maass, and E. Guttmann. In each case there was a marked reaction characterized, according to the doses, by rapid pulse, headache, perspiration, shivering, faintness, sickness, and sometimes muscular pains in the chest and abdomen. In every case there was a return to perfect health within twenty-four hours. Dr. Wassermann received four milligrams, and the temperature rose three degrees within ten hours, then fell, but rose to 40.2° C. twenty-seven hours after the injection. The presence of tuberculosis in his case was not out of the question.

The pure tuberculin is demonstrated to be forty times as strong in man and fifty times as strong in guinea-pigs as the crude form. So far as could be ascertained there appears to be no particular advantage in the pure substance over that of the crude preparation, unless time shall prove the greater stability of the former.

The author then details his method of preparing pure cultures of the tubercle bacilli to be used for the preparation of tuberculin. This presents no new features, as it is practically the method demonstrated by Dr. Roux, of the Pasteur Institute. The cultures used for extraction must be fully ripe—from six to eight weeks old—and they must be absolutely pure. These pure cultures are evaporated over a water bath to one tenth of their original bulk. They are then kept for an hour at a temperature of 100° C. in order to kill the tubercle bacilli, which are then removed by filtration through a clay or silica filter. The resultant product contains forty to fifty per cent of glycerine, by which it is protected against the entrance of bacteria. Fungi are prevented from



settling on the surface. Thus prepared it will doubtless retain its properties for years without deterioration.

**A LEPER COLONY IN FINLAND.**—In its issue for October 31st the Medical Record says: Kuusamo is the name of a small town in Finland where leprosy has existed indefinitely, sixteen deaths from this disease having occurred there between 1774 and 1800, and twenty-two between 1801 and 1828. In an account of the settlement by Dr. L. W. Fagerlund, in the *Finska Läkaresällskapets Handlingar* for September, 1891, it is stated that the Government in 1767 sent to Kuusamo a physician, who was instructed to study the disease carefully and devise some remedy for its cure. His studies appear to have been barren of practical result, for in 1788 the chief medical officer of the district sent to the College of Medicine in Stockholm to inquire how his cases of leprosy should be treated. He was advised to use a decoction of wild rosemary leaves (*folia rosmarini silvestris*) and also tincture of cantharides in doses of twelve to thirty drops. He was unable to overcome the malady by these means, and so in 1807 it was determined to isolate the sufferers in order to prevent any further spread of the disease. A building was accordingly erected on a small island in Lake Kitkajärvi, and the lepers were removed thereto. Here they remained until 1845, often suffering from cold and hunger in consequence of the neglect of those charged to carry wood and food for their use to the shore of the lake.

In 1845 the hospital system was abolished, and the medical officer of the district was instructed to visit the lepers twice a year in their own houses, and to report on their condition to the medical administrative body. These reports were made with regularity for twenty years, and then ceased. In 1871 the physician reported that he was unable to find any more cases of leprosy in Kuusamo.

Between the years 1845 and 1865, during which period the semi-annual reports were regularly presented, there were eleven cases of leprosy under observation. The evidence to be gathered from these reports as to the contagiousness of the disease is, as usual, indefinite and

inconclusive. In one instance the disease appeared to have been communicated from a woman to her husband and to one of her children, and in another a young man seemed to have communicated it to his sister. On the other hand, two of the patients, who were poor and incapable of providing for themselves, were supported by the community, being passed along from one house to another after making a certain visit in each. No case of the disease was proved to have been caused by contagion spread abroad by these peripatetic invalids. Dr. Fagerlund discusses at some length the opinions held by different writers on this subject, but brings forward no new evidence for or against the theory of contagiousness other than the meager facts just cited.—*New York Medical Journal*.

**THE NON-PERMANENCE OF INEBRIETY CURES EXEMPLIFIED**—The sad death of "Felix Old-boy," a literateur of New York City, lately, and a warm defender of the Keeley "bichloride of gold" cure, is reported. He died from alcoholism in the work-house on Blackwell's Island. He has only recently been represented in the North American Review by a long article setting forth the marvelous effects of Keeley's system in his own person and some other very obstinate cases. These cases were strenuously held to be "permanent" cures, but the ink could scarcely have been dry on the pages of the Review before his last lapse into drunkenness took place. So far as this case is concerned the Keeley "cure" was worse than a broken reed to lean upon, since this unfortunate inebriate was induced to ignore and despise the more legitimate measures of relief. The glamour of a false "permanence" misled him, and has probably hastened his final and fatal lapse. This is not said as being peculiar to the Keeley cure. It is equally pertinent to every other quackish claim to "permanence" in the treatment of the dipsetic propensity. It is not in the resources of chemistry, we hold, or in the pharmacy of the vegetal kingdom, to produce specifics of that nature. The true secret of Keeley, and every other pretender of his class who exerts any prohibitive influence over the lovers of toxicants, resides in the

power of the mind—the superiority of will power—and can properly be included under the head of “mind-cure” masquerading in the garb of drug-treatment. In view of the above, what will be the prognosis in the case of Keeley? His bubble has burst suddenly in the sight of the whole world, but his decline will not therefore or of necessity be immediate. He may still continue to have a following more or less noisy and enthusiastic, but his end draws nigh. We have seen just such cases as his, and the history of medicine tells of many others like him, and almost without exception this has been the rule. Exposure of fraud eventually brings about its downfall, but it is seldom an immediate or very rapid decline. Sometimes a fraud shows a considerable vitality, but this is not the rule when the true facts in the matter have been laid bare.—*Journal American Medical Association.*

**HEMOPTYSIS IN ADVANCED LIFE.**—At the beginning of last year's session of the Medical Society of London Sir Andrew Clark drew attention to a class of cases of hemoptysis (sometimes fatal) which was not associated with tubercular lesions, and occurred mostly in elderly people of arthritic tendencies and the subjects of emphysema and arterial degeneration. The paper gave rise to an interesting debate, which showed, however, that experience of this hitherto undescribed condition was not very wide. Dr. G. Busuttil, writing in the *Revista Medica* (of Malta), No. 22, fully confirms Sir A. Clark's observations, and relates three cases of the kind which occurred at the Asylum for the Aged and Infirm, Floriana. The first was the case of a boatman, aged seventy-two, who was admitted for copious hemoptysis. He had been subject to rheumatism and the asthmatic attacks resulting from emphysema. Astringents had no effect in controlling the hemorrhage, while a saline aperient, followed by the prescription of iodide of potassium as recommended by Sir A. Clark, was followed in three days by cessation of the hemoptysis. The second patient was sixty-six years of age, and he, too, had frequently had attacks of rheumatic arthritis. He was also the subject of chronic bronchitis. Alkalies

were administered, and within six days he was free from hemoptysis and pain. The third case was fatal. It was that of a female who had suffered from osteo-arthritis of the knee for seven years. She had also had syphilis. She was attacked by hemoptysis, which continued in spite of astringents, but ceased in four days after she had been placed on iodide of potassium in four-grain doses every four hours. Ten days later the hemoptysis recurred with such severity as to prove fatal within two hours. The *post-mortem* examination showed cardiac hypertrophy without valvular lesion, scattered hemorrhages in the anemic lungs, congested liver, and atrophied kidneys. There can, indeed, be no question as to the clinical condition to which attention was so forcibly drawn by Sir A. Clark; and an interesting chapter might be written on the hemoptysis of the aged. It must be open to question whether the fatal case above reported really belongs to the category described by Sir A. Clark, for he expressly eliminated an association with arterio-capillary fibrosis. The renal and cardiac changes (so far as can be gathered from the meager details) in the above case seem to point strongly to its being of the latter class, where the liability to hemorrhage is well known.—*London Lancet.*

**THE KEELEY CURE.**—People seem never to tire of chicanery and humbug. Mystery and quackery naturally go hand in hand, and the remarkable, almost inexplicable love of humanity for the adept professors of these twin arts will always furnish a plentiful supply of dupes. So great is the curse of drunkenness, that if by the humbuggery of secrecy, delusion, and hypnotic suggestion, any considerable proportion of drunkards could be reformed, it would almost appear inexcusable to make light of the chicanery, and the expert trickster might pocket his million in undisturbed peace. But a knowledge of nature's laws and of the facts of physiology lead one to recognize that revulsion and evil finally result from trifling with moral or physical facts. It is in the long run better to cure rightly and really than wrongly and delusively. The doing of evil that good may come is pathologically and therapeutically prone to be resultless of good.



Concerning the so-called bichloride-of-gold treatment of drunkenness, it may be suggested that bichloride of gold does not exist in stable solution. Our modern Cagliostro should know that the compounds of chlorine and gold are either the monochloride or the trichloride. He should, therefore, devise a new chemistry, or adopt a proper nomenclature.

There can be no discussion of the heinousness of the crime of advertising the possession of a remedy for drunkenness, and at the same time keeping the nature of the preparation or treatment a secret. If ever the use of thumb-screws and rack were justifiable, they should be applied to the wretch that for purposes of gain would keep from humanity the knowledge of such a cure.

The medical profession, so far as its self-respecting members are concerned, has set its face rigidly against secret nostrums, and despite all the cry of bigotry and prejudice that may be raised by the unthinking mob of magic-mongers, there will be no compromise upon the question while there remain in the profession honor, love of fellow-men, and hatred of disease.—*Philadelphia Med. News.*

**STERILITY OF FAT PEOPLE.**—Obesity is an obstacle to fecundation in all animals; and this law obtains also in the vegetable kingdom. Hippocrates enrolled this among his aphorisms. As proof, he cited the frequent sterility of the Scythian women, often fat, in comparison with the remarkable fecundity of their slaves, who were wont to become pregnant upon the least provocation.

Without seeking for demonstrative instances in Eastern Countries, M. H. Kisch (*Le Bul. Med.*) has ascertained that while sterility exists on an average in one household in ten, or at least in more than one in eight—six among the aristocracy—this proportion is increased to one in five when the wife or both parties are fat; if we reckon families which have only one child, in such cases there will be found a proportion of one to four.

It is useless to insist that mechanical obstacles, in consequence of obesity on the part of one or the other, and especially on the part of both, to sexual congress are the cause. It

should be observed that this condition is habitually accompanied by a decided frigidity. In addition, M. Kisch has observed that, though the virile power is preserved, the spermatic fluid is often destitute of spermatozooids (nine per cent), and even then they evince but little vitality.

With the woman, whose rôle in sterility is the most important, obesity is accompanied by a premature menopause; or if continued, the discharge is scant, void of color, and scarcely existent. Catarrhal affections of the vulva and of the uterus are frequent in such cases; and these concomitants are important in this regard.

It has been observed that when a regime, well advised and pursued, has resulted in removing, at least in part, the obesity, the genital sense revives, and with it the prolific aptitudes. On the other hand, if obesity is the occasion of sterility, it does not always entail deplorable consequences, and non-sterile women who are fat are no rarity.—*Weekly Medical Review.*

**CHANGES IN THE RED CORPUSCLES IN THE PERNICIOUS ANEMIA OF TEXAS OR SOUTHERN CATTLE FEVER.**—Before the Association of American Physicians Dr. Theobald Smith, of Washington, D. C., presented a paper with this title. In 1889 he called attention to certain bodies within the red blood corpuscles of cattle affected with Texas or Southern fever. After more extended study, including over fifty cases, he had found these bodies always associated with the disease. They are very likely parasitic protozoa, as they appear under several forms and exhibit ameboid movements on the warm stage. At the same time he pointed out as the most striking feature of the disease a rapid reduction of the number of red corpuscles, which in many cases fell from a normal of 5.5 to 6.5 millions in a cubic millimeter to one million and less. The presence of the parasites in enormous numbers and this great reduction of corpuscles seem to stand in the relation of cause and effect. During the repeated examination of blood from each case under observation the decline in the number of corpuscles was invariably followed by certain changes in the corpuscles

themselves. These changes consisted in an increase in their diameter and in the appearance of a variable number of granules within them, visible only after staining with basic aniline dyes (methylene blue). These "punctuated corpuscles," as he had provisionally called them, appear when the reduction has reached a certain point, and increase in number as the decline goes on, until finally hematoblasts appear. At this point the disease usually terminates fatally.

The paper was limited to a description of their changes and a discussion of their nature, significance, and diagnostic value. In presenting this particular phase of the Texas fever investigations he desired to make them available in the study of the various forms of pernicious anemia in the human subject, the etiology of which is involved in obscurity.

Dr. William H. Welch, of Baltimore, was particularly pleased with Dr. Smith's paper. It was of great interest, and showed that all medicine is one study, and that the disease in animals and man is scientifically the same. The only difference is the dignity. The protozoa described by Dr. Smith act much as the organisms of malaria by getting into the blood corpuscle and destroying it. The same kinds of blood corpuscle as he described are to be found in human beings in some forms of anemia. That this is all one process is not so clear to him. The same changes are observed in the blood in anemia due to venesection.

**A POISONOUS THIMBLE.**—Among the numberless causes of blood-poisoning through the skin, one which was lately recorded is worth noting on account of its evident simplicity and the ease of its prevention. In the case referred to the sufferer was a seamstress, and the mischief resulted from her using a dirty metal thimble marked with verdigris, a little of which appears to have entered a scratch on the thimble finger. We can well believe that this accident was not the first of its kind. Verdigris, it is true, is a mere metallic irritant, and not comparable in virulence to most living germs of disease. It is quite enough, notwithstanding, to excite local inflammation, which friction, contact with dyed cloth material, or the entrance of dirt in any form would quickly

convert into a dangerous and general disorder. There is really no excuse for women who trust their fingers in these cheap and worse than useless articles. Steel thimbles are much safer and cost very little. Another variety also in common use is enamelled within, and is, if possible, even freer from objection. Let us not forget to add a caution that cuts or scratches on the hand should never be neglected by sewing women so long as dyes continue to be used in cloth manufacture.—*London Lancet*.

*Editors American Practitioner and News:*

The semi-annual meeting of the Mitchell District Medical Society will be held at Columbus, Ind., on Thursday and Friday, December 17 and 18, 1891. This promises to be the best meeting yet held by this Society. A cordial invitation is extended to the profession to attend this meeting. Those desiring to read papers should forward their titles immediately.

E. S. Elder, M. D., President, Indianapolis;  
Geo. W. Burton, M. D., Secretary, Mitchell;  
Geo. T. McCoy, M. D., Chairman Committee of Arrangements, Columbus, Ind.

**DR. KOCH ON TUBERCULIN.**—In the current issue of the *Deutsche Medicinische Wochenschrift* Prof. Koch makes a "further communication" upon tuberculin. The article is a lengthy one, and will be read with interest in connection with the recent investigations in this country of Dr. W. Hunter. From a telegraphic communication received from our Berlin correspondent, it appears that Prof. Koch's main object has been to determine the possibility of obtaining a purified form of tuberculin, which should be free from producing the deleterious effect sometimes observed with the substance as originally prepared. Such a preparation he claims to have obtained by means of the admixture of alcohol with tuberculin; but it is noteworthy that his experiments upon healthy subjects and upon those affected with tuberculosis showed no essential difference in the reactions obtained between the two varieties. The article also deals in great detail with the nature, methods of preparation, and the prescription of the remedy.—*London Lancet*.



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*Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.*

## Original Articles.

### OBSTETRICS AND GYNECOLOGY.

BY E. S. M'KEE, M. D.

With reference to abortions, uteri may be divided into three classes in speaking of the facility with which they abort, viz., irritable, equable, and apathetic. The most trivial thing may occasion an abortion in some women, as a walk, jolt, misstep, or a purgative, which may cause a premature expulsion of the ovum. The apathetic form is still more remarkable, as illustrated in women who resort to criminal abortion. Jumping, lifting, washing, scrubbing, the most violent horseback riding following the chase, and extremes of all descriptions have failed in producing abortion. Sounds have been passed, intra-uterine medication has been carried on, operations have been performed on the cervix, the uterus, and its appendages—women have been thrown from carriages, railway trains, and bridges while pregnant, and still gestation has remained undisturbed.

The statistics of abortion give much information. The following figures probably come near the truth: 18.6 per cent of the whole number are habitual; uterine diseases account for 50 per cent; reflex causes, 21.528 per cent; syphilis affecting the fetus, retroflexion, salpingitis, and rheumatism, each 7.143 per cent. Treatment is followed by cure in 78.477 per cent, the patients subsequently bearing healthy children, while sterility results in 21.528 per cent, of which 14.286 per cent have incurable uterine affections or are past childbearing, and

7.242 per cent remain healthy but sterile; 90 per cent of child-bearing women abort once or oftener, and about one pregnancy in ten terminates abortively. During the years from 1867–1875, inclusive, New York City reports 197 deaths resulting from abortion, a number probably far short of the truth. During seven years the Rotunda Hospital, Dublin, only had one death from abortion.

Our European relatives term criminal abortion the American sin, which they think so common among our people as to deserve this appellation. The Americans speak with horror of the European percentage of illegitimate births. They reply, that in this country we hide our sins by the destruction of unborn babes. Physicians meet in practice women who would scorn to speak evil against a neighbor, who are tender and kind, leaders in social and even religious life, who are above suspicion as to chastity, yet who do not hesitate to murder their own children, provided only they be small enough. They do this not only once, but repeatedly; and not only do they commit this crime, but talk about it very unconcernedly, or engage in disseminating a knowledge of the work among friends as earnestly as they would work for a supper for the benefit of a hospital, kindergarten, or the far-distant heathen. They would fear to reverse the hands of their watch, but would break the laws of nature in their own human mechanism, a hundred fold more delicate, complicate, and precious. But let not all this be ascribed to sin alone, but partially to tender-heartedness. Many have been far more tempted by a woman's tears to lend her the knowledge which would save her from disgrace than by the large fee she offers. Many women convey the desired information or assist in reaching the desired object, as do a few doctors, purely through pity.

The induction of abortion has changed somewhat in method during recent years. Among the instruments recommended are Hegar's dilator followed by a tampon saturated with a four-per-cent solution of salicylic acid. An improvement on Tarnier's elastic balloon consists of a pear-shaped rubber ball, which, when reduced to a small size, is introduced into the uterine cavity and inflated. When pains commence it is slowly expelled in its distended state, and the fetus soon follows. Iodoform tampons are claimed to bring about the same result more safely and quickly than the sponge tent.

Conditions of maternal blood often play an important part in the causation of abortion. Powerful emotions are thought to alter the blood and thus bring about this result. The condition of blood which accompanies infectious disease is a frequent source. When quinine is given to pregnant women it should be combined with a small quantity of morphia, which will overcome the danger. It is still doubtful if quinine will originate uterine contractions, but there is no question that it will increase them if once created.

The constant inhalations of the odor of cotton seed and plants, especially if nipped by the frost, has been thought by some writers in cotton-growing States to cause abortion in women who are picking cotton. Others think the stooping position and the friction of the apronful of cotton on the distended abdomen is the real cause.

Lead poisoning from lead pipes is reported as the origin of abortion in several instances. Cardiac insufficiency has been recently asserted as resulting in abortion, and is cited by Thomas as sufficient cause for induction of premature labor. Probably many cases of habitual abortion might be explained in this way. The treatment is to relieve the heart by the recumbent posture. Cigar-making and occupations involving the constant manipulation of tobacco apparently lead to abortion.

The diagnosis of inevitable abortion is ever desirable, but unfortunately the signs are not always sure indications. Hemorrhage may continue for a considerable time and return at frequent intervals, but the pregnancy may

go on to term. Marked softening and dilatation of the cervix is generally followed by expulsion of the ovum, but not always. Three authors report cases where the portions of the uterine contents were expelled and abortion did not follow. Given ruptured membranes, a persistent hemorrhage, dilated os, ovum dead and presenting portions expelled, abortion is inevitable.

*The Gynecological Uses of Aristol, Ichthyol, Iodized Phenol, Resorcin, Creolin, and Chloride of Zinc.* By Dr. C. D. Palmer, Cincinnati. The author has found aristol superior to iodol and iodoform. It is unirritating, non-absorbable, and has no toxic effect. It possesses stimulating, alterative, and anesthetic properties. He uses it in the pure form, as a powder applied by insufflation. In narrow passages it may be used by suppositories. It becomes an admirable dry dressing for some cases of chronic vaginitis, vulvar pruritus, cervical endometritis, cervical erosions and fissures, mammary fissures, and syphilis, primary and secondary. Aristol gauze can be made by impregnating plain gauze with an ethereal solution of aristol containing from one to two grams of aristol per yard. Crayons for the urethra or uterus can be prepared by using at least one gram mixed with a sufficient quantity of gelatine or gum acacia.

Ichthyol appears to favor the healing processes, mitigating pain and favoring the absorption of inflammatory exudates. Dr. Palmer has utilized ichthyol in three ways; giving it internally, applying it externally and topically to diseased structures. His experience so far has been rather favorable, but not enough so to justify an enthusiastic expression. He employs iodized phenol more frequently than any other medicament within the whole range of medicinal preparations, excepting Churchill's tincture. He uses it for chronic morbid conditions of the endometrium, with or without special functional disorders. He employs it by ingestion and injection, without or following curetting. The drug is antiseptic, alterative, astringent, mildly caustic, and hemostatic.

Resorcin has proven an admirable remedy, combined with boracic acid and white vaseline,



or incorporated with the ointment of the oxide of zinc as a salve, to be applied to certain skin diseases of the external generative organs, and to foul-smelling, indolent ulcerations in the puerperal as well as gynecological conditions. Creolin is an efficient germicide, and in some respects is more powerful than carbolic acid, more destructive to the micro-organisms of various diseases and of suppuration. It is less toxic than carbolic acid, but is not entirely devoid of toxicity. Chloride of zinc is valuable for vaginal and endometrial morbid conditions. All malignant diseases of the uterus from any cause, rendering partial or complete hysterectomy unjustifiable, are signally improved in general health, given a prolonged life, and materially bettered in all local symptoms by a thorough application of the zinc chloride after sharp curetting. He has used intra-uterine tampons saturated with a solution (from 25 to 50 per cent strong), or crayons equally strong, a protection of the vaginal mucous membrane being maintained at the same time.

*Consanguinity, Conception, and Malformations* (British Medical Journal). Has the condition of the male parent, when begetting, any distinct influence on the offspring? A case related by M. Gueniot at the Paris Academy of Medicine would seem to favor the theory that there is such an influence; but in this case consanguinity must also be taken into account. A woman married her nephew, a man three years younger than herself, and long addicted to absinth and other forms of intemperance. She declared that he was always partially drunk when she admitted his embraces. Seven children were born, of which only one survived, and several were deformed. The last child was of great size, causing difficult labor. It was anencephalous, with six fingers on each hand and six toes on each foot; the external genitals were absent. Two large serous cysts occupied the liver, and were the cause of the great bulk of the child. Considering how some of the most minute physical peculiarities and some of the most subtle mental characteristics are transmitted from father to child, it is not wonderful that the offspring may be influenced by the state of its sire when impregnating the mother. The influence is probably indirect in

a case like the above. No doubt absinthism and ordinary intemperance affect the nutrition of all cells and fluids, spermatic included. The nervous condition of the mother may be unfavorable under the circumstances. The share of consanguinity in this case is doubtful. Recent researches tend to show that unions of consanguinity may keep up or intensify disease or malformations already in the family, but there is no evidence that they cause new maladies and deformities.

*Morphia in Pregnant, Parturient, and Nursing Women* (*Archives d'Obstetrique et de Gynecologie*, March, 1891). Furst gives the result of his studies to determine the effect upon the fetus when morphia has been administered to the mother. In one case twelve hundred hypodermic injections of a three-per-cent solution of morphia had been taken during pregnancy, and in a later gestation eight hundred injections of the same strength. Before labor the fetus was quiet after the drug was given to the mother until its effect began to wear off, when fetal movements were very active. After birth the children manifested no signs of physical or intellectual ill development. Furst concludes from this and other observations that morphia does not endanger fetal life to so great an extent as has been thought. When used moderately it is not a dangerous drug for pregnant women.

*Amenorrhea and Dysmenorrhea* (*Le Bulletin Médicale*). Apiol, the active principle of the seed of parsley, is an oily, amber-colored liquid, insoluble in water, but soluble in alcohol, ether, or chloroform. It is absolutely harmless in its physiological action even in commencing pregnancy. A dose of three to fifteen minims produces slight cerebral excitement, a feeling of well-being, and a sensation of heat in the stomach. In doses of one half to one dram it produces veritable intoxication accompanied by vertigo.

*Therapeutics*: It appears to have an action on the uterus similar to the action which digitalis has on the heart; it regulates menstruation. Therefore it is useful in all the derangements of menstruation, viz., amenorrhea, dysmenorrhea, and metrorrhagia, provided the disturbances be idiopathic. If, however, these

diseases be due to organic affections, then these organic affections must be directly treated.

As disorders of the menstruation are a common cause of sterility, apiol may be said to be a remedy for the latter disease.

In order that apiol may exercise its most powerful influence, it should be administered just prior to the beginning of the menstrual flow.

*The Prevention of Retroversion of the Uterus* (A. Lapthorn Smith, Journal of Gynecology, September, 1891). The sensitive uterus thumps down on the sacrum, or in some cases pounds the imprisoned ovaries. If accoucheurs would adopt simple rules, all this suffering might be saved. First, to instruct patients not to lie on their backs, but to lie occasionally upon their faces, and to turn freely from side to side. Allow them to sit up while taking meals and to relieve bladder and bowels. Not to allow bladder distended the first few days, but order catheter passed every three hours at least. Abandon use of obstetric binder until involution is complete and patient up and uterus anteverted. To order the simplest case a daily douche of plain or medicated hot water, so that if retroversion does occur it may not be rendered hopelessly incurable by adhesions. To keep the bowels in an easily movable condition, so as to avoid forcing the uterus when retroverted still further into the hollow of the sacrum.

*The Advantages of Electricity in Pelvic Inflammatory Troubles* is thus summarized by Dr. Geo. F. Hulbert, of St. Louis. The value and position of electricity in the method advocated, and that place the result as due to its use, is dependent: (1) The fact that in all other conservative methods recovery is not the rule, be the means used drugs, local treatment, or otherwise. Occasionally through nature's unaided efforts recovery results with time, but these cases are exceptional. Simple aspiration has been tried and found wanting, except in a few cases. (2) Prompt and progressive improvement observed within the shortened time required, usually averaging from one to nine months, according to the severity of the case. (3) The uniformity of results, non-recovery being the exception. The author states that

over one hundred cases of pelvic diseases in which the inflammation had extended to the pelvic peritoneum had been treated by electricity. Four cases of pyosalpinx had been relieved by this method. Five cases had been relieved by the discharge of pus from the tube through the uterus. The remaining cases treated were not those in which suppuration existed, but inflammatory conditions involving the tissues from endocervix to pelvic peritoneum.

*Tumors of the Decidua* (*Centralblatt für Gynecologie*, June 13, 1891). Professor Senger has collected a considerable number of cases of deciduoma. A perfectly innocent form exists which must not be mistaken for inflamed and degenerate relics of decidua left adherent to the uterine walls. Senger and Chiari have observed a malignant deciduoma which gives rise to metastasis—a true sarcoma of the decidua in fact. Foul discharge and hemorrhage follow delivery, and death occurs within six or seven months after symptoms of disease in the bones, lungs, and other organs. The metastatic deposits in the lungs resemble decidua, bearing the characteristic cells.

In the discussion upon Prof. Senger's paper (*Union Médicale*, June 2), Dr. Fuller stated that he had seen a case where masses of decidua-like tissue were found in the uterus, and metastatic deposits developed in the vagina, abdomen, and nates. Dr. Veit believed that these were simply instances of pregnancy during cancer of the uterus.

CINCINNATI.

## THE ABUSE OF THE FORCEPS; FADS AND FACTS.\*

BY WILLIAM B. DOHERTY, M. D.

Humanity demands that no condition of suffering or disease requires such undivided care and attention and deep sympathy on the part of the physician as the woman in labor. The beautiful language of our own great poet and physician, Dr. Oliver Wendell Holmes, on this point is very appropriate: "The woman about to become a mother, or with her newborn infant upon her bosom, should be the object of tren-

\*Read before the Louisville Clinical Association, October 6, 1891.



bling care and sympathy wherever she bears her burden or stretches her aching limbs. The very outcast of the street has pity upon her sister in degradation when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victim by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly, or selfishly."

One of the most important questions which arises before the obstetrician is to determine, in cases of tardy or prolonged labor, when and under what conditions is the use of the forceps a necessity? The tendency of the teaching and practice of the profession at the present day is to terminate labor too expeditiously, and this, in my opinion, springs from the dangers incident to prolonged labor being exaggerated. No rule can be laid down as to what should be the duration of the second stage of labor. Every case possesses its individuality; but we are advised that in cases of well-formed pelves, when the membranes are ruptured, the os uteri fully dilated or dilatable, and a condition of inertia of the uterus exists, or no advance in the progress of labor is evidenced within the space of two hours, that the forceps should be employed, labor terminated, and suffering relieved. Whether the advice is sound, whether it should be accepted as the embodiment of a canon which it would be folly to impeach, deserves the gravest consideration. If the course counseled is to be taken as the best course to pursue for the safety of the parturient woman and her child *in utero* under the conditions we have indicated, dispassionate students of obstetrics, fettered by no hard and fast lines, will probably conclude, and conclude with reason, that the tendency of our teaching and practice is to reduce labor from a physiological to a pathological process. Have our high-strung civilization and the luxurious mode of living which obtains so enervated woman that her

life and that of her child be jeopardized if the second stage of labor be prolonged for three, four, five, or even six hours? Does the experience of the members of this Association warrant such a conclusion? Are the dangers from exhaustion and compression so great in unduly prolonged labor that it is better to use the forceps than to rely any longer on the *vis medicatrix naturæ*?

The dangers of the use of the forceps to the mother are: "*Laceration of the uterus, vagina, or perineum from a too rapid extraction of the head, fracture of the coccyx and of the bones of the pelvis, and stretching of the ligaments of joints, and lacerations of external genitals, and abscesses arising from contusions.*"

These unfortunate and dangerous sequelæ are more likely to arise when the child is forced by instrumentation through the pelvis with a degree of speed too great for the elasticity of the vagina and relaxation of the perineum, than if labor be physiologically prolonged. Besides these results from violence, there are reflex headaches, backaches, etc. which so many neurotic women suffer from simple lacerations of the cervix uteri. The dangers which menace the child are: *Contusions and injuries to the face, injuries to the scalp, skull, or brain, or paralysis.*

The indications for the use of the forceps are not influenced by the duration of the second stage of labor so much as by other conditions.

First, as to the child: The head must be engaged in a suitable position; a decline in the fetal heart sound below 100 during a pain or interval between pains, or above 160 with a weakened impulse; a prolapsed cord, if the pulsations are still present or have ceased but for a short time.

Second, as to the mother: *In case of extreme prostration resulting from prolonged efforts at expulsion, temperature above 100°, serious hemorrhages, convulsions, bruising and compression of the maternal soft parts, varicosities which are on the point of rupturing, and accidental complications of disease.*

In any of these conditions of extreme danger to the mother or to the child or to both, the use of the forceps is imperatively necessary, and its employment is the

most conservative of operative or instrumental procedures. But the use of the forceps as instruments of convenience or of speed, to save time, or for the purpose of relieving pain by yielding to the implorations of the sufferer, in cases of weak pains or tardy labor, can not be too strongly deprecated.

Besides the dangers from laceration and injuries above referred to, serious copious hemorrhage may set in from the too sudden repulsion of the placenta when the forceps is used too early. Weak pains alone, which can often be combated by the use of hot local applications, warm drinks, etc., are no indication *per se* for the use of the forceps, for

"It is the curse of evil deeds,  
That they give rise to greater evils."

The forceps, I am fully convinced from experience in the lying-in room, is used too frequently and disastrously for the purpose of saving time by hastening labor.

#### FADS AND FACTS.

The general practitioner is too often led by the views of enthusiasts in specialism, some of whom are book-makers, and whose experience is confined in a great measure to dispensary and hospital practice. We know the dangers from puerperal fever are enhanced in the septic lying-in wards of hospitals, and statistics based on results of practice among the chronic clinicians and habitual medicine-takers who frequent these institutions are not so reliable or useful to the general practitioner as the experience he obtains by treating patients who are so fortunate as not to be compelled to take advantage of these institutions.

The profession is in danger of being disintegrated and engulfed by the speculative, business-like methods of some specialists and medicine-venders. The enthusiastic tyro in microscopy and bacteriology, from the emotional disturbance produced by a strain of expectant attention, we know, can not be relied upon as an exponent of the germ theory. The grave importance of personal equation in the consideration of such issues is but little thought of. There is danger of his seeing germs everywhere.

Only a few years ago the profession was

startled with the announcement of the discovery of a real Elixir of Life. Under its potent and magic-influence the decrepitude of senility, with its attendant harrowing cares and enfeebled mind, was transformed into the agility, zeal, and elasticity of youth. The period of life known as old age was to become obsolete, and physiological laws were to be ignored and trampled upon. The impressible octogenarian was to have his youth "renewed as the eagle's," and we were assured that what Ponce de Leon had sought in vain, and lost his life in pursuit of, was given to mankind by Brown-Séquard. It seemed to be accepted that death, which followed the primal disobedience, was to disappear from earth. A nostrum was to effect this wondrous revolution! The "fad" was taken up by some members of the profession who coveted patients to submit to the exhibition; the daily press greedily sought the records of the return from age to youth of those injected with the elements of rejuvenescence, and physicians gave bulletins of the condition and progress of their patients to panting reporters. The tone of the profession was lowered when physicians set a fairy tale against the immutable laws of science, against the records of humanity. The dignity which attaches to a science was abased when physicians advertised their adherence to a fad in a manner that would be associable with the heralding of the contortions of an acrobat or the grimaces of a clown.

We were later invaded by the "fad" of "Kochine," and some physicians, through the daily press, informed the profession that under the influence of Koch's lymph the temperature of the tuberculous patient fell, the pulse was lowered, and a careful examination revealed the fact that tuberculous products were rapidly disappearing. Physicians again sank to the level of chapmen advertising their wares, and the "fad" vanished after a brief period.

It is unfortunate that songs of fame and glory are being constantly sung around the daring of the knife in surgery. A flash of light seems to give a brilliance to the career of an enthusiastic surgeon, when he wantonly and unjustly unsexes woman by removing her ovaries for the relief of neuralgia or obscure nervous trouble, without any well-marked evi-



dence of organic lesion to justify such a radical procedure. Such an exploit is essentially vicious and destructive to the best interests of science and humanity. Possibly some venturesome surgeon, fired by ambition and sensationalism, will in the near future suggest castration for the relief of neurasthenia, now so prevalent in the male as well as the female species of the human race. If the removal of the ovaries be justifiable for the relief of neurotic trouble in women, why should not the man with a vitiated nervous organization be also unsexed? It is scarcely necessary to say that for lack of subjects for experimentation the "fad" could never be introduced.

Many of our medical associations are only mutual admiration societies, where some members report for publication, *success, success, success*, while their unsuccessful cases are relegated to the realms of innocuous desuetude. Unfortunately many of those who read papers at conventions remember that "we chronicle no French defeats in the galleries at Versailles." Away with the plague-spots of sensationalism, "shop-talk" cures, successful radical operations, and speculative nonentities which are often reported in the daily press as advertising matter.

Happily the tendency to such acts of notoriety exists only among a small number of physicians. The great majority labor faithfully and earnestly in the field of true science, and are not so possessed of the *ego* but that they can still believe the word *cure* means to *care for properly*, and that the *vis medicatrix nature* exercises a potent influence for the relief of disease. The general practitioner, with the broadest field for observation, must be alive to every advance of medicine, and carefully reject the views of extremists, who have only theories to sustain. He is called to the bedside of the patient at the warning of disease; he forecasts its attack; he watches its endurance; he sees out its close. He is the mainstay of the afflicted, the solace of the sufferer. He will best succeed in his capacity as physician or surgeon who holds that rational progress in harmony with true and proper conservatism is the grandest gem in the diadem of medicine.

## HAS THE GERM OF TYPHOID FEVER BEEN DISCOVERED?

BY EWING MARSHALL, M. D.

*Assistant to the Chairs of Materia Medica and Practice of Medicine, University of Louisville; Visiting Physician to the Home of the Friendless, etc.*

What is the history of the study of this subject? Long before the birth of bacteriology the infectious nature of typhoid fever had been taught. Germs of one kind or another have been suggested as its cause by many experimenters; prominent among them are Tigri, in 1864; Coze and Feltz, in 1866; Hallier, in 1868; Recklinghausen, in 1871; Klein, in 1875; Browicz, in 1875; Sokoloff, in 1876; Fischl, in 1878; Eberth, in 1880 and 1881.†

At present Eberth's bacillus typhosus is credited by many as being the specific cause of typhoid fever.

On what does he base its claim? Simply because this bacillus is found in the mesenteric glands and spleen of typhoid-fever victims, but never encountered in the blood or organs under the influence of other lesions.

If we could prove its constant presence under the one condition, and its invariable absence under all others, the fact would only be strong presumptive evidence of its intimate association with the pathological anatomy of this lesion; but to prove that it is the specific pathogenic agent, the group of symptoms, signs, and pathological anatomy which characterize typhoid fever must be instituted by it alone. When, according to different authorities of wide reputation, we find that this bacillus in different culture media results in many varieties of form, how shall we as yet claim that it is not present in a different form in other diseases than typhoid fever?

Much store has been set by Eberth and others on a central oval or round portion remaining unstained; but Chautemesse and Widal have found several water species, and Blocq an air species, which present such a non-stained center.

Lastly, with reference to the evidence of the

\*The facts for this article were obtained from a paper by Geo. W. Fuller, on the Specific Organism of Typhoid Fever, published in the Technology Quarterly.

† He hinted at something of the kind in 1872.

power at present of experimenters to say this germ occurs only in typhoid-fever patients, I quote the words of the first master of bacteriology—in short, no less an authority than Dr. Koch—who, in August, 1890, said: “When the typhoid-fever bacillus is found in the mesenteric glands, spleen, or liver of a typhoid-fever victim, there can be no doubt that one is dealing with the genuine typhoid-fever bacillus, for other bacteria have never been found in these places which could be confused with it. But the conditions are wholly changed if it is attempted to identify the typhoid-fever bacillus in feces, soil, water, and dust. For there are found here great numbers of very similar bacteria, which only a very skilled bacteriologist can distinguish from the typhoid-fever bacillus; and even then not with absolute certainty, since unmistakable and constant characteristics are yet lacking. The numerous statements recently made, that the typhoid-fever bacillus has been found in soil, drinking-water, and foods, can therefore be received only with a reasonable doubt.”

Is it the cause, or is it one among many germs that are found along with the pathological changes occurring in this lesion?

If typhoid fever has killed your patient, and you find this germ, it was the cause; but if you are called in about the close of the case, and for some reason the diagnosis has been obscure, then, unless the pathological anatomy is characteristic of typhoid-fever, you would not be able to say whether or not the germ was the true bacillus typhosus. It reminds me forcibly of Dr. T. S. Bell's differential diagnosis for cholera: “If the patient died he had cholera, but if he got well he did not have cholera.”

Koch says it can not with absolute certainty be distinguished from some other bacteria. May it not be a case of identity, with some of its characteristics altered by its environments? May the future not enlighten us on this subject, as it did on the supposed difference between the white blood cells and the so-called pyogenic cell?

Has any one truly produced typhoid fever by inoculation with this bacillus of Eberth? The experimental world has tossed to and fro upon

this troublesome question. Immediately upon Eberth's announcement several distinguished men claimed to have accomplished the feat; but soon as the excitement had cooled down other and more careful studies were made, and they failed where the others supposed they had succeeded. And so it went till Benmer and Peiper made exhaustive studies of the subject, from which they drew the following conclusions:

1. Death often occurred, but not due to typhoid fever.

2. By inoculation with ordinary water species, such as bacillus subtilis, micrococcus prodigiosus, white bacillus, and the liquefying fluorescent bacillus, death could be produced in mice, rabbits, and guinea-pigs.

3. That it is impossible to produce typhoid fever in the lower animals.

*Summary.* 1. On account of the diversity of form and variety of action found to be the nature of Eberth's bacillus typhosus, as we understand it at present, and also on account of the great difficulty in differentiating it from what is supposed to be entirely different bacilli, we must maintain that it can not as yet be proved beyond the peradventure of a doubt that it occurs alone in the morbid viscera of the typhoid-fever patient.

2. On the authority of Benmer and Peiper and other noted experimenters, we deny that as yet, by inoculation with bacillus typhosus, has true typhoid fever been produced. Therefore our position, until these arguments are refuted, must be that we do not know that the germ of typhoid fever has been discovered.

LOUISVILLE.

THE EARTHQUAKE IN JAPAN.—It is estimated that the recent earthquake in Japan killed between six and seven thousand persons and injured nine thousand more. Seventy-five thousand houses were totally destroyed.

JACK THE RIPPER.—The publicity given to the murders in the White Chapel district in London seem to have initiated similar murders in different parts of the world. The last one recorded is from Berlin during the last month.



**THIRTY-SEVEN INTUBATIONS.**

BY W. B. PUSEY, M. D.

I do not expect to bring out any thing new concerning the operation of intubation, or to compare its merits with those of tracheotomy, but simply to report my work in that line, with the hope that it may be of some interest to the profession in general. There are some cases of acute laryngeal stenosis for which intubation does not suffice. In those cases tracheotomy is necessary, but in those cases which intubation does relieve, its advantages are obvious. All my experience, with the exception of one case, has been for the relief of dyspnea due to membranous laryngitis. This single exception was that of a child, three years old, who had swallowed quite a quantity of carbolic acid. Its failure to relieve was due, I think, to the edematous condition of the upper part of the larynx, epiglottis, and contiguous parts. In this case a tracheotomy was necessary, and, when done by Dr. J. A. Larrabee, afforded relief, the child recovering.

In my cases, of which I have had thirty-seven, there are three which were practically dead, as there was only now and then a convulsive gasp for air; two others were in fact dead, making five cases which should not be counted against intubation; still, as I did intube and practice inflation and artificial respiration on them, with in one or two some slight temporary success, and have them in my record of cases, I give them. In the first fifteen cases, which include the above mentioned five, I had two recoveries—13.3 per cent. There was one other child in this number from whom the tube was removed on the sixth day, and the parents, careless as to instructions, allowed it to play around the room. At supper it climbed up to the table, and, while reaching for something, fell over dead.

In my last twenty-two cases I have had thirteen recoveries—59.4 per cent. There was in this number also one child who, notwithstanding the best of attention, died suddenly ten hours after the removal of the tube. Both these cases are counted against intubation. In the thirty-seven cases I have had fifteen recoveries, or 40.54 per cent. I have kept no record

as to whether the operation was done for membranous croup or diphtheria. The results in the former are much more satisfactory. I have had one patient, a boy eight years old, to wear the tube two days and cough it up, the necessity for its reintroduction not arising. In four cases it was removed on the fifth day, in four on the sixth, in two on the seventh, in three on the ninth, and in one on the thirteenth day. In those cases in which it was worn more than seven days it was removed, but reinserted. In one case (the child who wore it thirteen days) it was only after the third removal that it could be left out.

My greater success in the last twenty-two cases I ascribe to increased skill, and in a minor degree to the fact that, taken collectively, they have had better nursing, but chiefly it is because the operation has been done at an earlier stage of the trouble.

I frequently introduce the tube next smaller in size to the one indicated by the age of the child. Its lumen is very nearly as large as that of the full-sized tube, furnishing at any rate quite sufficient breathing-space. I find it much easier to introduce, and I believe, should it happen to become occluded with detached membrane or a foreign substance, much more likely to be expelled by the patient. I usually leave the tube in warm water for a few minutes before introducing it, as I think the introduction of the tube warm does not produce so much coughing as it does when cold. I do not always use the gag—generally dispense with it. Nor, in removing the tube, do I always use the extractor provided for it; but by pressure upward externally, below the end of the tube, with my right hand, I dislodge it, and with the left forefinger hook it out. This method is not original with me, nor can I just at present recall to whom credit for its description is due. In a young child it is frequently impossible to use the extractor found in nearly all the sets now sold, as the distance from the curve of the instrument to its tip is greater than from the vault of the buccal cavity to the glottis, thus making its manipulation mechanically impossible.

The great disadvantage of intubation is, as it has ever been, in the feeding. The least

difficulty is experienced by putting the child upon its belly, with the head lower than the thorax, and making it take all liquid from a nursing-bottle or through a glass tube or straw. With larger children, who will not mash or chew it, I prefer the straw, as it can, if used for any thing other than water, be thrown away after one using. I give milk, and whisky and milk in all forms that they will be taken. I allow soups and broths of almost any kind, in moderation, provided it is first strained and then given as directed. For nursing children, who are not accustomed to the bottle, I direct the mother to lie on her back, place a thick pillow over her abdomen, and the child over this, allowing it to take the breast in this position, directing the mother to cleanse the nipple thoroughly afterward. If a great deal of coughing is produced by the feeding, and the child is very weak, I think it best to rely on rectal injections entirely, giving crushed ice, or rather ice in small lumps, by the mouth to quench thirst.

The great virtue of the operation is in its early accomplishment.

LOUISVILLE.

### MURIATE OF CALCIUM IN TUBERCULOSIS.

BY ROBERT DURRETT, M. D.

I have had under treatment in the last twelve months several cases of tuberculous tendency. Mrs. K. came to see me in January, 1891, complaining of pain in the upper part of the left lung, with a dry, hacking cough, which kept her from sleep. She presented a tired, haggard appearance. An examination disclosed circumscribed dullness near the apex of the left lung, with minute crepitation. Several members of her family had succumbed to consumption. (I do not believe, however, in the transmission of tuberculosis from parent to offspring.) Mrs. K. was put upon the muriate of calcium, forty grains three times daily, with marked improvement. The dry, hacking cough has disappeared, and her physique is simply perfect. She says she is not willing to be without a bottle in the house.

The next, Ben, a little fellow under four

years, with strumous diathesis generally, eyelids swollen, meibomian glands enlarged, eyelashes gone, left submaxillary glands swollen to the size of a section of a goose-egg, belly swollen tight, limbs emaciated, skin dry and of ashy appearance. Mother said he had been falling off in flesh for several months; took his food heartily enough, but that it passed as he swallowed it; that he was languid, restless at night, with trembling of the muscles, grinding of his teeth, and would frequently scream out in his sleep.

Here was a typical case for the use of this salt. Let us call it tuberculosis, cachexia, scrofula, it matters not; confidence was placed in the calcium, and the sequel is satisfactory. This little fellow was given ten grains of the muriate of calcium, C. P., in half a glass of milk, after each meal. The patient soon showed evidence of improvement. He is to-day quite a good-looking boy, plays with his comrades, sleeps well, feeds well, and what he eats is digested.

The treatment will be continued with all the cases. I give adults from thirty to forty grains in a glass of milk after each meal.

I use the pure calcium chloride, directly imported for me by Dr. Wiley Rogers.

**SALICYLIC ACID AND BUTTERMILK IN RHEUMATISM.**—I have been supervising the making of butter for some time, twice a week. To make sweet butter and milk that will retain their freshness, I add forty grains of salicylic acid to the gallon of cream before churning. This will prevent further decomposition of the milk, preserving it for an indefinite time. The free use of this salicylated buttermilk will be found an excellent remedy in rheumatism.

WINOMA, KY.

**MEDICAL MISSIONS.**—China is perhaps the most inviting field in the world for medical missions, says Rev. Mr. Blodget, of Pekin. In Japan the native physicians, and in India the army surgeons, are met with as rivals, but in the Flowery Kingdom the medical missionary has it all his own way, and can treat without restraint both the soul and the body of Ah Sin.—*Record*.



## Reviews and Bibliography.

**History of Circumcision from the Earliest Times to the Present:** Moral and Physical Reasons for its Performance, with a History of Eunuchism, Hermaphroditism, etc., and of the Different Operations Practiced upon the Prepuce. By P. C. REMONDINO, M.D. 346 pp. Price, \$1.25 net, in cloth; paper, 50 cents. Philadelphia and London. 1891.

This is an historical and controversial work intended to establish the great value of circumcision as a hygienic and moral measure. The author does not advocate it directly as a religious ordinance, but except for certain agnostic outgivings one might conclude that such was really the concealed motive of his work.

He collects from the works of various authorities a large mass of interesting historical and scientific matter. The subject is, however, evidently the "one lamb" of its author, and he has become so much enamored of it that he forgets that the average reader could have no disposition to wade through no end of irrelevant discussion lugged into the text.

The author has found the root of all evil, the prepuce. So intent is he on proving the perniciousness of this organ, that he makes a witness of himself to prove that a surprisingly large number of the physicians of the United States, France, and England operate upon every male member of their families. He is surprised at the large number of physicians who have had themselves circumcised, either through the advice of some college professor while attending lectures, or as a result of their own subsequent conviction.

One can not but be equally surprised on reflecting how diametrically opposite is the average experience, one might say the universal experience, from that of Dr. Remondino, and, so rating his facts, would not be inclined to put a high value on his opinions. A well-digested and clearly arranged book embracing the information contained in the work, and written in lucid style, would doubtless prove valuable and interesting reading. But the reportorial style of the Western newspaper that characterizes it, added to the author's obvious bias, better adapts it for skimming, and not rarely for skipping.

D. T. S.

**Electricity, its Application in Medicine and Surgery:** A Brief and Practical Exposition of Modern Scientific Electro-Therapeutics. By WEL-LINGTON ADAMS, M.D. In two volumes. 129-112 pp. (Physicians' Leisure Library.) Detroit: Geo. S. Davis. 1891.

The qualifications of the author of this work for the task he has here undertaken may be inferred from claims set forth by him in his introduction. "The writer," says he, "having without doubt devoted an unusual amount of time and study not only to electro-therapeutics, but also to original experimental research in general electrical science, rendering himself thoroughly conversant with electrical engineering in all its branches, even to such an extent as to have introduced the electric railway and the electrical transmission of power into this country, as well as assisted in familiarizing electrical engineers with the principles involved in the scientific design and construction of commercial electro-dynamic and dynamo electric machinery, will perhaps be pardoned for assuming what to many will appear a somewhat dogmatic attitude in this brief exposition of the science of electro-therapeutics." There is certainly nothing short-circuited about that sentence, and if it contain no errors we should like to be assured of the fact, so that the author's name can be mentioned again. If indeed he introduced the electric railway and the electrical transmission of power into this country, he is all too little known.

In studying so difficult a subject as electricity, one desires rather to have his attention directed to the importance of the subject than to that of the writer. We should look about considerably before adopting it as a text-book. The dedication is to Prof. Francis E. Nipher, of St. Louis, a most excellent man, and one whose name would offset the shortcomings of several pages of almost any book.

D. T. S.

**Medical Publications.** Harvard Medical School. 1890.

This work is a collection of articles published in bound form to show the character of the original work done by the instructors of the Harvard school. The volume does credit to the institution.

D. T. S.

**A Treatise on Practical Anatomy**, for Students of Anatomy and Surgery. By HENRY C. BOENNING, M.D. Illustrated with one hundred and ninety-eight wood engravings. 481 pp. Price, \$2.50. Philadelphia: F. A. Davis.

This work gives in large, clear print, but decidedly inferior illustrations, the principal points in human anatomy. The grouping of material is not such as will commend itself to many, nor will it compare with many other works already in the field as candidates for professional favor. From the profusion of thanks returned by the author in his preface to the many who took part in the work, it might be looked upon as a symposium. Indeed, if he had mentioned the janitor and the kindly folk who furnished the requisite "bones," the whole institution with which he is connected might have had mention.

D. T. S.

**A Compend of Human Physiology**, arranged in the form of Questions and Answers, prepared and especially adapted for the Use of Medical Students. By WM. J. WATKINS, M.D., Graduate of Kentucky Medical College, Louisville, Ky.

This publication appears to be made up mainly of the quiz notes of the Professor of Physiology in the Louisville Medical College, to which the author has industriously prepared the answers. We suppose it is to the above-named school he refers to in his title page, as we know of no Kentucky Medical College in the city. The compilation must have proved a valuable exercise to the author in the way of improved knowledge, though with only the general profession for patrons we doubt its success as a financial venture.

D. T. S.

**An Abstract** of the Symptoms, with the latest Dietetic and Medicinal Treatment of various Diseased Conditions; The Food Products; Digestion and Assimilation; The New and Valuable Preparations manufactured by Reed & Carnrick. 79 pp. New York: Reed & Carnrick. 1891.

This is a skillfully prepared reading advertisement of the many excellent preparations of the sterling house from which it emanates, and mingles with much valuable information references to the productions of this house appropriate for employment in various diseased conditions.

D. T. S.

**The Physician's Visiting List** (forty-first year of its publication) for 1892. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. Sold by all booksellers and druggists.

REGULAR EDITION: For 25 patients per day or week (gilt edges, pencil, pocket, etc.), \$1.00; 50 patients per day or week, \$1.25; 75 patients per day or week, \$1.50; 100 patients per day or week, \$2.00; 50 patients per day or week, 2 vols., January to June, July to December, \$2.50; 100 patients per day or week, 2 vols., January to June, July to December, \$3.00.

INTERLEAVED EDITION: For 25 patients per day or week (gilt edges, pencil, pocket, etc.), \$1.25; 50 patients per day or week, \$1.50; 100 patients per day or week, 2 vols., January to June, July to December, \$3.00.

PERPETUAL EDITION: Same as the regular edition, but without dates, and with special memorandum pages. Can be commenced at any time, and used until full. Bound in handsome red leather. Gilt edges. For 1,300 names, interleaved, tucks, pocket, and pencil, \$1.25; 2,600 names, \$1.50.

MONTHLY EDITION: Name of patient need be written but once during the month, the whole month's account being kept in one place. Can be commenced at any time. Leather cover, pocket, pencil, gilt edges, with tucks, \$1; leather cover, without tucks, 75 cents.

Extra pencils will be sent postpaid for 25 cents per half dozen.

This visiting list has been too long before the profession to require more than mention at the hands of the reviewer. It is not easy to see how it can be improved.

**Insomnia and its Therapeutics.** By A. W. MACFARLANE, M.D., Fellow of the Royal College of Physicians, Edinburgh; Examiner in Medical Jurisprudence in the University of Glasgow, etc. Octavo, 302 pp. Muslin, \$1.75. New York: William Wood & Company. 1891.

The title of this work might embrace a great deal more than it does, and then not cover all its valuable contents. In its ample pages nearly every form of sleep derangement, with the causes leading to it, are fully considered, together with appropriate treatment. It is the work of a physician eminent among medical writers and thinkers at one of the greatest centers of learning. It is a work that will repay careful study; and not only does it throw light directly on every form of insomnia, but also aids in the better understanding of many other diseases, from the incidental consideration they are given in this connection.

D. T. S.



**The Medical News Visiting List, 1892.** Philadelphia: Lea Brothers & Company.

The list for 1892 comes to us with usual neatness of form and with some addition to its valuable contents. "It is now published in four styles: *Weekly*, dated, for 30 patients; *Monthly*, undated, for 120 patients per month; *Perpetual*, undated, for 30 patients per week per year, and *Perpetual*, undated, for 60 patients per week per year (without text). The first three styles contain 32 pages of text and 176 pages of blanks. The 60-patient style consists of 256 pages of blanks. Wallet size, flexible leather cover, pocket, pencil, and catheter scale. Price, in any style, \$1.25."

**Saunders' Pocket Medical Formulary**, with an Appendix; containing Posological Table, Formulæ, and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of Female Pelvis and Fetal Head, Diet List for Various Diseases, Obstetric Table, Materials and Drugs used in Antiseptic Surgery. By WILLIAM M. POWELL, M. D., author of *Essentials of Diseases of Children*, etc. 261 pp. Price, \$1.75, leather; \$1.50, cloth. Philadelphia: W. B. Saunders. 1891.

This industriously compiled volume can not but be of service to the practitioner who desires to know what is going on in the therapeutic world. The formulæ are well selected, and embrace about every thing prescribed and prescribable in the *materia medica*.

## Abstracts and Selections.

RECENT EXPERIMENTS WITH THE PNEUMOCOCCUS OF PNEUMONIA AND ITS TOXINE AND ANTITOXINE.—THE POSSIBILITY OF CONFERRING IMMUNITY IN ANIMALS AND EVEN IN MAN.—G. and F. Klemperer (*Berliner Klin. Wochens.*, August 21, 31, 1891) have published a memoir in which are detailed some important recent experiments, the practical outcome of which may possibly be of some real therapeutic importance.

The directing idea which guided these German investigators in their experiments was the following: It is known that in most cases pneumonia, after having, during from five to seven days, caused grave general symptoms, terminates abruptly by crisis. In the space of a few hours the temperature falls to its normal

level and even below it, the pulse becomes slower and firmer, and the patient experiences a striking amendment. Now at this moment there has been little or no change in the state of the lungs, which still remain infiltrated with fibrinous exudation, nor in the properties of the pneumococci, which are found in great numbers in the sputa, and retain all their virulence, as can easily be proved by inoculations of animals.

The pneumonic crisis, then, does not depend on any change in the state of the lungs or in the microbes which have caused the infection. To what, then, are we to attribute it? Only one explanation is possible: the crisis is due to the products of secretion of the pneumococcus, which by their accumulation modify at a given moment the soil on which the microbes develop.

In their experiments made upon hares, the Klemperers early observed that any nutritive substance which had served as a culture medium for the pneumococci, even if it had been separated from the microbes by filtration, might confer upon the animal immunity against the pneumonic infection. The power of this vaccine may be augmented, both in rapidity and intensity of action, by subjecting the liquid for two or three days to a temperature of 41° C., or during two or three hours to a temperature of 60° C.

They then obtained experimental proof that the blood-serum of a hare "vaccinated" against the pneumococcus may cure the pneumonic infection. It suffices to inject this serum under the skin or into the veins of the infected animal. An intravenous injection of eight cubic centimeters of serum of an animal rendered refractory, practiced twenty-four hours after the infection, produces a gradual fall in the febrile temperature and hastens the cure of the animal.

As will be seen, these experiments strikingly resemble those of Behring and Kitasato, who lately announced that the blood-serum of animals rendered refractory to tetanus and diphtheria is capable of curing other animals of these diseases.

In another series of researches devoted to the study of the cause of the curative action of the serum of vaccinated animals, the German pathologists found that the pneumococcus when introduced into the body of an animal gives rise to the production of a pneumotoxine, which may be isolated. This pneumotoxine produces a febrile reaction of several days' duration, after which they have noted in the fluids of the animal another substance, anti-pneumotoxine, which has the property of neutralizing pneumotoxine.

The blood-serum of an animal on which immunity has been conferred contains anti-pneumotoxine, and it is this which seems to forward the cure of the pneumonic infection. In the blood-serum of patients affected with fibrinous pneumonia they have also found pneumotoxine and anti-pneumotoxine; the first chiefly during the febrile period of the disease, the second after the crisis. They claim to have cured the pneumonic infection in hares by injecting in these animals blood-serum taken from a pneumonic patient after the crisis.

After being assured by experiments made on themselves that man may support with impunity, and without any local and general reaction, injections of the serum of animals rendered refractory to Fraenkel's diplococcus, the pathologists above mentioned ventured to experiment clinically, with therapeutic intent, on some patients affected with pneumonia. Although these trials covered only six patients, the results have been very encouraging. In fact in all these patients a hypodermic injection of four to six cubic centimeters of serum was followed at the end of from six to twelve hours by a considerable fall in the temperature with slowing of the pulse and respiration.

These experiments are especially noteworthy in that they so strikingly confirm the almost simultaneous and independent experiments of Emmerich and Fowitzky, who claim that they have conferred immunity on the hare by means of hypodermic injections of attenuated cultures of the pneumococcus; but this immunity, they say, is incomplete, and the extract of the organs of the animal has but an incomplete curative action. On hares infected by pneumococci, *per contra*, full immunity is obtained by intravenous injections of a culture having its entire virulence, but largely diluted. The liquid obtained by crushing and expression of the organs of an animal thus rendered refractory exercises upon the pneumonic infection a sure curative action when it is injected under the skin into the abdominal cavity, and especially into the veins of the infected animal.

Large expectations are being entertained by many enthusiastic workers that researches akin to those above noticed, now going on in many parts of the world—researches the inspiration to which came from Selmi, Gautier, Bouchard, and especially Koch—are destined to be very fruitful in therapeutic results; and that possibly the physician of the future, armed with his hypodermic syringe and his vial of "antitoxine," will find himself master of any and every infection. However, the disappointment experienced thus far in regard to tuberculin should cause us to entertain such expectations with moderation.—*Boston Med. and Surg. Jour.*

ON THE RÔLE OF ALCOHOLISM IN THE ETIOLOGY OF GENERAL PARALYSIS.—At the Congress of Mental Medicine held in Lyons, August 3, 1891, the subject which elicited the most discussion was that of the rôle of alcoholism in the etiology of general paralysis.

Rousset, who opened the discussion by an exhaustive report, concluded that predisposition is equally as important a pathogenic factor as alcoholism. There are, however, exceptional cases where, apart from any hereditary influence, alcoholic excesses may determine at length those processes of connective-tissue proliferation and cerebral sclerosis which find expression in paralytic dementia.

Magnan defended the view propounded in his well-known work, namely, that chronic alcoholism leads habitually to dementia and sometimes to general paralysis; this view being supported by arguments borrowed from experimental physiology on the one part, and from clinical observation and pathological anatomy on the other.

Experiments on animals subjected to chronic alcoholic poisoning give as results thereof stasis of the liver and kidneys, sclerosis of the pericardium, of the meninges, and of the posterior columns of the cord. In man similar lesions are noted as the effect of prolonged alcoholic excesses; the morbid process localizes itself in accordance with individual predisposition, and when it affects the cerebrum it determines the symptoms of dementia.

Regis stated that he had formed his opinion from data obtained in the private asylum of Castel d'Andorte. He finds that in the middle classes of Gironde cases of general paralysis and of alcoholism are in absolutely inverse proportion, and that in this region at least alcoholism has no influence on the production of general paralysis. On the other hand, almost all cases of general paralysis are old syphilitic patients, and this leads him to assign an important rôle to syphilis as an etiological factor in general paralysis.

Marié, of Paris, regards ordinary toxicological agents (mercury, lead, opium) as factors of no account in general paralysis. Nor do the infectious poisons (those of acute diseases) seem to have any influence in the genesis of this disease. Syphilis, on the contrary, as a chronic infectious process has been found to be pathogenic in sixty-five per cent. Alcoholism and syphilis combined, associated with heredity, seem to form a sort of triad with predominant etiological influence. So impressed is this authority with the importance of heredity that he regards general paralysis rather as a degenerative affection of the race than of the individual.



Combemale, of Lille, stated that he had induced in dogs the characteristic symptoms and lesions of general paralysis by dosing them with daily quantities of alcohol introduced by the stomach-tube. These experiments were made in conjunction with Mairet. These are his conclusions:

1. Chronic poisoning by alcohol gives rise in the dog to outbreaks of delirium, characterized especially by ideas of fear with hallucinations.

2. To these symptoms, which generally mark the onset of these psychical troubles, are shortly added mental enfeeblement and muscular disorders, both ataxic and paralytic, which begin by the posterior extremities, or at least have their maximum there, and rapidly become general, as in general paralysis.

3. At the autopsy of the animals are found the principal lesions which characterize general paralysis—diffuse meningo-encephalic inflammation and vascular dilatation.

4. To the nervous disorders of the limbs are to be added certain choreiform tremblings of the head and neck, and modifications of character and of instinct; thus an animal of snappish, churlish disposition would become mild-mannered and tolerant of excitation.

These physical and mental disturbances were thought to justify the diagnosis of general paralysis of special form.

Christian thought that it would not do to give to the morbid accidents noted in the dog by Combemale the name of general paralysis. They simply show that alcohol causes in the dog delirium and paralysis. With this opinion Mairet coincided. He believes that alcohol may determine in man the appearance of a special form of general paralysis, quite distinct clinically and anatomically from ordinary general paralysis.

Magnan did not dispute that alcoholism gives to general paralysis a special physiognomy, which results from the distribution of the lesions. But this is no reason for creating a special form of general paralysis.

Charpentier affirmed that hospital statistics have proved that it is in alcoholic patients that general progressive paralysis acquires its maximum of frequency. In the last five years he has found at Bicêtre eighty-three cases of confirmed alcoholism out of one hundred and thirty-five victims of general paralysis. If general paralysis of alcoholic origin takes on a special form, this is due to the nature of the intoxicant, its affinities for particular tissues, and the kind of irritation it provokes.

From an anatomo-pathological point of view, alcohol poisoning may produce the entire symptomatic complex known as progressive

general paralysis, and at the autopsy one may fail to find the characteristic lesion of general paralysis, that is, diffuse interstitial sclerosis. *Per contra*, there is no diffuse interstitial sclerosis without general paralysis, while there may be general paralysis without this anatomical lesion.

From the foregoing discussion it will be seen that pathologists have not yet with sufficient precision defined the pathological anatomy, the symptoms, and the course of that morbid entity designated under the name of general paralysis; and until this is done, as remarked by one of the speakers at the meeting, the question of the rôle of alcoholism in the etiology of general paralysis can not be satisfactorily answered.—*Ibid.*

**IODIDE OF POTASSIUM IN DIPHTHERIA.**—Zenenko (Cincinnati Lancet Clinic, September 5th) speaks highly of the treatment of diphtheria by iodide of potassium. In adults the drug should be given from five to eight grains every two to four hours, up to one half to one dram a day. In children from one to fourteen years of age, single doses should range from a half to three grains. The administration should be continued until the appearance of iodism and an incipient separation of false membranes, which usually occurs on the second, third, or fourth day. As adjuvant means he employed hourly gargling with a two- or three-per-cent boracic or salicylic-acid lotion with glycerine and tincture of geranium or camphorated spirit. Further inunctions of gray mercurial ointment (from one scruple to one dram twice a day) were used for enlarged cervical and submaxillary glands, while stimulants, quinine, etc., were freely given.

**FRIEDREICH'S ATAXIA: ITS RELATION TO THE CONDUCTING PATHS IN THE SPINAL CORD.**—At the recent Congress of American Physicians and Surgeons, Dr. David Inglis, of Detroit, read a paper upon this subject before the American Neurological Association. He reported in brief a case of Friedreich's ataxia in a boy six years of age, in which the symptoms conformed accurately to Friedreich's own summary of the characters of the disease, viz: "Impairment in the combination and harmony of movements developing gradually and spreading from the lower to the upper half of the body, and always involving finally the organs of speech; sensibility and the functions of the special senses and of the brain being intact; paralysis of the sphincters and trophic disturbances are absent; less common phenomena are curvature of the spine, sensations of vertigo, and nystagmus. From a clinical point of view

we must regard the disease as a progressive paralysis of the faculty of combination of movements."

A review of the thirteen recorded autopsies showed a practical agreement that the pathological condition underlying the disease consisted in a progressive sclerosis, which always affected the column of Goll, the column of Burdach also, but not so completely, the direct cerebellar tracts, with Clarke's column in most cases, and the crossed pyramidal tract in some cases, but the sclerosis was here not so intense. We had to deal with the disease of the tracts which were usually looked upon as centripetal and as conveying sensory impulses. The author contended that the symptoms of Friedrich's ataxia afforded a demonstration that these tracts did not convey sensory impulses upward, for sensation was not impaired, but that they were the main tracts for the conveyance of co-ordinated motor impulses downward; that their anatomical relations with the medulla oblongata, cerebellum, and mid-brain, as well as the facts of Friedrich's disease, agreed in showing them to act to co-ordinate motor impulses of the mid-brain, the cerebellum, and the higher and lower levels of the spinal cord. The facts of embryology strengthened this theory; at the end of fetal life, at a time when the pyramidal tracts were undeveloped, the posterior columns and direct cerebellar tracts were complete. Their function evidently began at once after birth. When we remembered that the new-born infant was characterized, not by voluntary control of its muscles, not by accuracy of sense perception, but by an extensive co-ordination of involuntary motor functions, the conclusion was easy that these, the only tracts fully developed at birth, subserved these purposes. The direction of Wallerian degeneration was not necessarily the same as the direction of normal physiological impulses in any given nerve tract.—*New York Medical Journal*.

**NERVE-STRETCHING IN INVETERATE CASES OF TRIGEMINAL NEURALGIA.**—Dr. James Stewart, of Montreal, read a paper with this title. He confined his remarks to those cases which were attended by spasm of the facial muscles and those where the neuralgic paroxysms came on with great suddenness and lasted for a few seconds, and which persisted for years in spite of all the ordinary remedies, both internal and external. In the past two years the author had had three cases of severe inveterate neuralgia come under his care, which he had treated by nerve-stretching with very satisfactory results. Statistics showed that the results from neurectomy were better than those from

nerve-stretching, but it must be remembered that neurectomy was an operation not devoid of danger. Many deaths had been reported from this operation, the mode of operating probably accounting for the unfavorable results, but, as nerve-stretching was a mild operation as compared with neurectomy, it was to be preferred. Another important reason for preferring nerve-stretching was that, if the preliminary operation failed, it might be repeated several times, if necessary, while, if an extensive neurectomy was first performed, no operation except the grave one of ligating the common carotid was left. As the great majority of cases of epileptoid neuralgia were due to central mischief, it followed that after the failure of an extensive neurectomy neither nerve-stretching nor a further neurectomy was possible.

From his present experience with nerve-stretching in inveterate neuralgia, he thought he was safe in coming to the following conclusions: (1) Nerve-stretching gave either complete or great relief in the majority of cases. (2) The relief was not permanent in more than five per cent of cases. (3) If the pain should return, the operation could be repeated, even several times, before resorting to a neurectomy or ligation of the common carotid artery. (4) If the pain was not strictly and always limited to one branch of the nerve, several branches should be stretched. (5) As relief did not always immediately follow the stretching, a second operation should not be undertaken until some time had elapsed.

**ULCERATION OF THE MOUTH AS A SYMPTOM OF LEAD POISONING.**—I have thought it worth while to record a few notes on this subject, because it does not seem to be mentioned in the ordinary text-books as one of the symptoms of lead poisoning. My attention was first directed to ulceration of the mouth as a symptom in this disease by a friend who had two cases in one family, both children, who each had a crop of small ulcers in the mouth, and on having the drinking-water analyzed it was found to contain a considerable trace of lead. He asked me if I knew it to be a recognized symptom. My answer was that I had not heard of it. In April of this year I was called to see a child about two and a half years of age. He was feverish, temperature 100.4°, and had six or eight small ulcers in his mouth, which are best described as "phlyctenular." They were situated on the inner sides of the cheeks, some opposite to where there were teeth, and some further back, so that they did not appear to bear any relation to the teeth. The ulcers consisted of red excoriated spots, varying in



size from that of a pin's head to that of a hemp-seed, each surrounded by a small halo of whitish, swollen mucous membrane. The child was constipated, and, except the fever, had no other symptom to note. The following day he vomited several times, and had frequent attacks of griping pain in the abdomen (colic), during which he screamed and drew up his legs. These symptoms, of course, clearly pointed to lead as the cause of the trouble, and on analyzing the drinking-water it was found to contain a considerable trace of lead, the source of the contamination being rain-water stored in a lead-lined tank. There was no blue line present at any time, and on removing the cause of the trouble the patient rapidly got better, the treatment being directed to relieve the constipation by enemata, and the colic by small doses of opium. It would seem, therefore, that in cases of ulceration of the mouth in children one should look carefully for lead poisoning as a possible cause.—*Dr. O. Stedman, in London Lancet.*

**METHYL-BLUE IN ACUTE GONORRHEA.**—At the meeting of German Physicians of New York, of February 27, 1891, I demonstrated (with specimens) that the urine of persons taking methyl-blue, in doses of 0.2 ( $3\frac{1}{2}$  grains) two or three times daily, remain undecomposed, even if kept in an uncovered vessel, at ordinary temperature, for several weeks. Inoculations made with some of this dyed urine on bouillon-gelatine did not develop any colonies. This fact seemed to justify the trial of methyl-blue in all the disorders of the genito-urinary system which are caused by micro-organisms. At the March meeting of the above-named society I showed that the urine of one patient with pyelitis, and of two other patients with acute gonorrhea, remained aseptic after having taken methyl-blue internally, and that inoculations made with it on bouillon-gelatine and agar-agar did not develop any colonies of micro-organisms. This was the reason which led me to apply methyl-blue in acute gonorrhea.

Twelve patients of the German Dispensary, with acute gonorrhea, were treated in no other way than by administering internally 0.2 methyl-blue in a gelatine capsule once a day after supper; nearly all of them lost the burning pains in the penis they had had the next day. Of these twelve patients, nine have been completely cured within eight to thirty-five days (one each in eight, twelve, thirteen and sixteen days; the other five in from three to five weeks). Among the remaining three, one derived no benefit whatever from the methyl-blue; in the two others the pain became lessened, but the flow did not seem to become

altered by this mode of treatment, and here use was made of the usual mode of treatment by injections.

I would like here to state that although I have brought up the subject of methyl-blue before the above-named society, and mentioned the apparent rationality of its use in diseases of the genito-urinary organs, Dr. I. Adler was the first to apply methyl-blue in gonorrhea by injecting solutions of this substance, whereas I have applied it internally only.

My letter would grow too long were I to mention all the trials I have made with methyl-blue, still I should like to call attention to a few interesting facts with reference to the use of it.

A patient with edema and anasarca, dependent upon a chronic nephritis, lost his edema in eight days, having taken  $3\frac{1}{2}$  grains methyl-blue *pro die*; he returned after six months with the same symptoms, having been free from them meanwhile; he again resumed the treatment with methyl-blue, and the edema disappeared in eight days.

In one case of herpes zoster treated with methyl-blue, 0.2 internally once a day, and no other medication whatever, the pain disappeared in two days, and the herpes-vesicles dried up on the seventh day. (This patient was presented as cured at the last meeting of the German Medical Society, November 2, 1891.)

One case with itching all over the body (pruritis chronicus senilis) of five years' standing, which had been treated by me about four years without much success, was cured by taking methyl-blue, 0.2 internally, once a day for two months. It was interesting to note that a chronic ulcer of the leg in this patient had meanwhile healed without any other treatment than it had before.

The above statements show that methyl-blue may perhaps also gain a place in the treatment of diseases of the skin, and is certainly worthy of a trial by dermatologists. I should like to caution my colleagues that in prescribing methyl-blue they make certain that pyoktanin is not dispensed instead, as has been done quite often by druggists; this latter substance being badly borne by the stomach.

I have no doubt—and am here in accord with those gentlemen of this city who have tried and still apply the anilin dyes in the treatment of surgical diseases, and especially in the treatment of inoperable malignant growths (Dr. Willy Meyer and others)—that the anilin dyes will certainly soon play an important part in the various branches of medicine.—*Max Einhorn, M. D., New York Medical Record.*

DIURETIN IN GENITO-URINARY SURGERY.—“Outside of the usual complications liable to attend any cutting operation, the surgeon who deals with the genito-urinary tract has to contemplate and, if possible, guard against that other mysterious concomitant of operations on the urethra and bladder, known under various names, and often called ‘urinary fever.’”

All sorts of things have been done to prevent urinary fever, and most surgeons have some particular method or drug in which they have at least a slight confidence. But no method has met with perfect success, perhaps because the cause is not always the same, and the method needs to be varied with the cause; perhaps because the fever in question is the result of physical change which renders the individual incapable of enduring even a slight additional strain. While the pathology is imperfectly understood, it is still necessary to attempt, somewhat blindly perhaps, to avert this unhappy occasional result of operations on the urinary tract.

In a paper read before the American Association of Andrology and Syphilology, at Washington, last September, and published in the *Medical News* of October 31st last, Dr. Keyes suggests the use of diuretin as possibly likely to be available for this purpose. Diuretin is one of the new drugs which, as manufactured by E. Merck, of Darmstadt, is believed to contain fifty per cent of theobromine, the other ingredient being salicylate of soda. It is said to be a free diuretic, pretty constant in its action, and its use at the Boston City Hospital has seemed to confirm that claim. According to Dr. Keyes, it does not irritate the stomach, bowels, or kidneys, and does not depress a weak heart.

Dr. Keyes would probably be the first to point out the fact that during the past year he has lost but one urethral case, and that since using diuretin he has lost none, and could hardly expect to, if his former percentage is to be maintained. He expressly states that he does not assert that the drug has great value, or any value, but that it does no harm, and that since using it he has had no urinary fever proper—that is, there has never been a chill nor a suppression.

The operations done since he has begun to use diuretin have been mostly done upon old men with damaged kidneys, all of whom recovered without chill or any tendency to suppression; and it is fair to imagine that the means used had something to do with it, and diuretin is the only new drug used.

“It will prevent or even moderate urinary fever, it is a valuable drug.” Dr. Keyes hopes to report a more extended experience with it

next year, and his commendation will undoubtedly lead others to carry on control researches. *Boston Medical and Surgical Journal.*

ANTISEPTICS IN CATARACT EXTRACTION.—As corrosive-sublimate solution is used so frequently in the treatment of eyes during cataract extraction, Mellinger's experiments on rabbits, reported in the *St. Petersburger Medicinische Wochenschrift*, may be of interest. He treated the eyes of these animals with the greatest care, first using a cocaine solution and then sterilizing the parts with a solution of corrosive sublimate, 1 to 5,000. After a careful incision of the cornea, the eye was washed again with the sublimate solution. He found in a number of the cases that, if the solution remained in the anterior chamber for any length of time, a form of parenchymatous keratitis was set up. The endothelium was softened and became liquefied, finally causing intra-ocular pressure with destruction and perforation of the cornea. He has seen an exceedingly weak solution cause trouble, such as delay in the healing of the wound. He advises a weak solution of chloride of sodium and boric acid, with irrigations of a boric-acid solution after the extraction. These, he says, have the advantage of being sufficiently antiseptic, do not cause any injury to the delicate structures of the anterior chamber, if any of the fluid remains in it, and do not prevent healing of the wound. He thinks that by using these solutions the dangers of cataract extraction are very materially lessened.—*New York Medical Journal.*

A CASE OF CESAREAN SECTION.—The operation of cesarean section has recently been performed successfully by Dr. Cullingworth at St. Thomas' Hospital. The patient, a primipara, aged twenty-one, is a rachitic dwarf, four feet five inches in height, with a generally contracted and oblique pelvis and rachitic lower extremities. The estimated true conjugate is only two and a third inches. The operation was performed on October 8th, at 2 P. M. Pregnancy had advanced to within one week of full time. Ether was administered, and the abdomen opened by a mesial incision five inches long, beginning one inch above the umbilicus. The uterus was found rotated to the left, the right broad ligament lying in front and a little to the right of the abdominal wound. This was remedied, and an incision of four inches made in the anterior wall of the uterus, the hemorrhage being restrained by digital pressure. The entrance of blood and liquor amnii into the peritoneal cavity was effectually prevented by keeping the edges of the abdominal wound



closely applied to the anterior surface of the uterus. The child, a well-formed male, was seized by the left leg, and easily extracted; it weighed seven pounds seven ounces, and was twenty inches and a half in length. The cord was then clamped and divided. The placenta and membranes were quickly removed, and two fingers passed through the cervix into the vagina. The uterus contracted well, and was now brought out of the abdomen and the sutures introduced, beginning at the lower angle of the incision. Ten deep and eleven half deep sutures were used, hemorrhage being arrested during their introduction by pressure of the abdominal wall against the lower segment of the uterus. No elastic ligature was used. The fallopian tubes were ligatured, and after the peritoneal cavity had been cleansed by sponging, the uterus was returned to the abdomen and the abdominal wound closed by deep and superficial sutures. The operation lasted altogether an hour. The chief points to be noted in the subsequent progress of the case have been the extreme scantiness of the lochial discharge, some abdominal distension and pain on the second day, and an attack of pleurisy, with a temperature of  $103^{\circ}$ , a pulse of 132, and some sickness on the fourth day. The patient was returned to the general ward on the seventh day, and on the following day the sutures were removed, the abdominal incision having soundly healed. The mother and child continue to progress satisfactorily.—*London Lancet*.

**A CASE OF ACROMEGALY IN THE NEGRO.**—Dr. J. S. Berkley has reported in the Johns Hopkins Hospital Bulletin for September the first case of this disease known to have occurred in the negro race. His case is the forty-fifth in current literature and the seventh in the United States. It is that of a negress, aged sixty, an inmate of the City Insane Asylum of Baltimore, under treatment for delusions of persecution. The measurements and photographs of the patient were obtained under difficulties, since, like most subjects of paranoia, she is at times very refractory. The enlargement of the extremities has not advanced to the degree noted in some of the older typical cases, but it is sufficient, with other present conditions, to make this case a characteristic one. The hands, compared with the forearms, are enormous, the fingers are thick, the nails are broad and short, the skin is wrinkled and creased, and the phalangeal joints, the first especially, are considerably expanded. The feet also are of large size, with some phalangeal hypertrophy. The inferior maxilla is apparently increased in its vertical measurement,

and the soft parts of the face show some hypertrophy, especially the lower lip, which projects forward and is pendulous, giving the profile a prognathous aspect.

The writer gives his analysis of the diagnosis, in this case, of acromegaly from myxedema, rhachitis, and osteitis, dwelling upon the absence of the mucin deposits belonging to the former and upon the absence of deformity of the diaphyses of the long bones in the latter; also from Marie's newly described *ostéo-orthropathie-pneumique*—briefly referred to in this journal for October 3d—by the absence of pulmonary disease. A diagnosis from an obscure form of syringomyelia is attended with greater difficulty. The author refers more especially to two cases, one reported by Charcot in a recent number of *Progrès Medical* in which there were recurrent trophic lesions of the skin of the arms and hands, and another of similar character reported by Holschewnikoff in the *Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin*, in which, however, there was no loss of sensibility to heat and pain on either side of the body. Dr. Berkley considers it probable that the hypertrophy of the extremities in his case dates from the menopause, as in a few reported cases whose history was more clearly ascertainable than that of his own. The mental condition of his patient does not allow of any correct estimation of the amount of neuralgic or other pain that may be present; an inconstant headache, of no great severity, is at times complained of. There is in this case a pronounced scoliosis, extending from the seventh cervical to the second lumbar vertebra, a condition that is rather rare in acromegaly, but more frequent in syringomyelia. A summary of all the phenomena of this case points with almost equal probability to some form of angeioneurosis or to some irritative lesion of the posterior roots of the spinal cord, with a presumption in favor of the former.—*N. Y. Medical Journal*.

**CASE OF PUERPERAL ECLAMPSIA TREATED WITH ANTIPYRIN.**—On August 13, 1890, I was called to Mrs. T., aged twenty-eight, six months and a half pregnant, primipara. Her husband told me that his wife had always enjoyed good health until a few weeks ago, since which time she had had swelling of face, hands, and legs, and the last day or two had complained of headache and had passed very little urine. On returning home soon after 6 P. M. he found her lying on the floor partially undressed, quite unconscious, with blood oozing from her mouth. On my arrival, soon after 7 P. M., I found her just recovering from a fit. Her tongue was very much swollen, and had been bitten. She

was quite unconscious, pupils widely dilated, pulse 98, and face and extremities much swollen. On examination I found the os uteri contracted. She had passed about four ounces of urine; which I afterward examined and found to be almost solid with albumen. Shortly after my arrival she had severe convulsions, and as soon after this as it was possible I put fifteen grains of antipyrin on her tongue, and directed another dose to be given her in four hours' time. On August 14th the nurse told me that the patient had had seven fits during the night, but none since 2:30 A. M., and only one, and that a slight one, since the second powder was given. She had passed urine in the bed. At 10 A. M. she was sleeping quietly, pulse 70, and when roused I found her to be in a semi-conscious condition. The child was alive. I prescribed purgatives and milk diet. She improved daily, and two days after I prescribed iron. I examined her urine on August 24th and found only a trace of albumen. After this she apparently got well, but on September 23d I was called to her, as she had had another fit. I saw her before she had regained consciousness, and as soon as I was able gave her fifteen grains of antipyrin. She had no more attacks. I examined her urine and found it contained albumen, but not so much as in the previous attack. She went on well until October 24th, when she was confined and had a normal labor, excepting that the child was still-born and had been dead for some time. She made a good recovery after this.

*Remarks:* The above case is interesting, as I believe it is rarely one has the opportunity of seeing a recurrence of eclampsia during the same pregnancy. Whether the antipyrin had any thing to do with the mitigation of the fits I can not say, but it certainly reduces blood-pressure quickly, and I can not find any mention of its having been given in cases of eclampsia before.—*Dr. F. C. Palmer, London Lancet.*

**A CASE OF HEMATOMA AURIS WITHOUT MENTAL DISEASE.**—The following case of hematoma auris has come under my notice, and I report it for its lack of connection with any mental disease. A. B. is a seaman in the United States Navy, and was born at Dublin, September 29, 1861. He first came to the sick-bay for treatment on the evening of April 27th, saying his right ear was very painful. It had begun to pain him two hours before, but at that time he didn't notice any thing unusual.

Examination showed the external ear swollen into a red, hot, fluctuating tumor, about the size of a hen's egg. The canal was entirely closed by the swelling. About ten c.c. of

bright arterial blood was evacuated by a small incision at the concavity of the concha, and a bandage put on with the idea of applying pressure and preventing re-formation of the tumor, which was almost entirely reduced by the evacuation of blood. A dose of sulphate of magnesia was given. Next morning the tumor was as large as ever. It was again punctured, and rapidly refilled, and no further treatment was given. On May 6th the patient was discharged to duty, without pain, and the tumor, very little reduced in size, was more firm. It has gradually contracted, until now, August 15th, the fluctuation is gone and the ear is very much thickened and puckered out of shape. There seems to be a large amount of new connective-tissue formation. The left ear was affected in the same way two years ago, and is now in the same deformed condition. Hearing is not affected in either. The patient is a robust fellow, five and a half feet high, and weighs one hundred and fifty-five pounds, ruddy complexion, gray eyes, sandy red hair, and an intelligent face, a little plethoric probably. He has been a mariner most of his life, and spent the three years preceding the occurrence of the first tumor off the west coast of Mexico and Central America on the United States steamship *Ranger*. Family history good, mother and father living, the latter aged seventy and in good health. Denies ever having had syphilis or rheumatism. He is not an habitual drinker. Had a mild attack of typhoid fever after returning to California from Mexico and Central America. This was after the appearance of the first tumor. He has never had the scurvy, nor any thing tending to induce hemorrhagic diathesis, and shows no symptoms whatever of mental trouble of any kind.—*Dr. L. W. Spratling, M. D., N. Y. Medical Record.*

**CASE OF LUPUS UNDER TREATMENT WITH TUBERCULIN SINCE FEBRUARY.**—The medical officer in command at Cincinnati, under date of August 20th, reports as follows to the Surgeon-General of the Marine Hospital Service: "I have the honor to inform you that the use of tuberculin has been discontinued in the case of lupus of seventeen years' standing, transferred from Washington, D. C., to this station for a continuation of treatment with tuberculin, commenced by Assistant Surgeon Geddings, February 11, 1891. The destruction of tissue by advancing ulceration and sloughing was more marked in the last fortnight of treatment than at any time during the entire period of the existence of the disease. In view of the condition of the lupus patch, it was deemed advisable to abandon the use of tuberculin." *Boston Med. and Surg. Journal.*



**THE ACTION OF HYDRASTINE UPON THE VASCULAR SYSTEM AND THE UTERUS.**—Authorities are divided (*Les Nouveaux Remèdes*) upon the mode of action of this drug on the vascular system. Some have observed an increased blood-pressure and slowing of the heart's action, while others affirm that the drug paralyzes the vascular system. The uterine contractions provoked by hydrastine are due, according to some, to the direct stimulation of the muscles and of the cardiac nerves; according to others, to the stimulation of the central nervous system. It was for this reason that Serdsteff had undertaken new experimental researches upon frogs (sixty-two experiments) and upon warm-blooded animals (fifty-seven experiments). These are the results obtained by this experimenter:

Given in a small dose, hydrastine provoked in frogs and in warm-blooded animals slowing of the heart's movements, owing to a stimulation of the inhibitory apparatus, both peripheral and central. Small doses always increased blood-pressure; by larger doses it was lowered.

These differences depended upon the state of the vaso-motor center. Small doses were not followed by convulsions, and did not paralyze either the respiration or the heart. He thinks, then, that if some observers have verified the paralyzing action of hydrastine on the vascular system, it must be those who have given larger doses of the remedy. Regarding the influence exercised by hydrastine upon the uterus, the voluntary or rhythmic contractions of this organ would be increased in their strength, their number, and their duration.

Hydrastine does not act directly upon the neuro-muscular apparatus of the uterus, but indirectly by the intervention of the central nervous system, and that very probably by way of the vaso-motors.

In sustaining these obtained results, the experimenter counsels the use of hydrastine in all those cases of hemorrhage where it would be, for one cause or another, unwise to await strong contractions of the uterine muscles, and where it is of the greatest importance to attack the bleeding through the vessels of the uterus. *Archives of Gynecology.*

**SENILE SCLEROSIS.**—Dr. Putnam, of Boston, has called attention in the *Journal of Nervous and Mental Disease* to what he calls a "group of cases of sclerosis of the spinal cord, associated with diffuse collateral degeneration, occurring in enfeebled persons past middle life, and especially in women." Eight cases to which this description might apply have been seen, and the cords have been examined in four of them. There were, of course, individual differ-

ences in the cases, but the symptoms in general consisted of a sub-chronic progressive impairment of both the sensory and motor functions of all four extremities, associated after a time with moderate wasting of muscles and general emaciation. The fatal cases ran their course in about two years—in one it was four—and presented complete paraplegia as a symptom toward the end. In three cases inco-ordination of movement was a marked symptom, while in the rest it was absent, or at least not obtrusive. Shooting pains were present in only one case, and the symptoms in this were much more spastic than ataxic in character. Another noticeable point is, that of the eight fatal cases six were women, all were past middle life, nearly all were in a condition of considerable debility, and in several obstinate diarrhea was a marked symptom. Several of the patients had also carried in their tissues small quantities of lead, as proved by analysis of the urine, and two had had malaria. Anatomically morbid changes were found in both motor and sensory areas of the chord throughout its entire length. The medulla and pons were examined in only one case. They were found to be free from material change. The changes in the cord were of two kinds: one of older date, consisting of a relatively dense sclerosis in the posterior and lateral columns, and the other of a subacute character, partly in new places and partly around the edges of the older sclerosis. In the gray matter the changes consisted of a disintegration of cells, and their almost total disappearance in some places. Such were the symptoms and the anatomical changes underlying them. The author also discusses the etiology of the condition, but without coming to any definite conclusion. This at such an early stage is but natural. No doubt fresh cases will soon be adduced (indeed one has already been described in this country by Dr. Grainger Stewart, which in its clinical symptoms corresponds with Dr. Putnam's cases), and the histories of those will probably throw some light on the origin of the condition.—*London Lancet.*

**THE PHYSIOLOGICAL ACTION OF RUBIDIUM-AMMONIUM BROMIDE.**—Drs. Tausk and Vas report, in the *Deutsche Medizinisch-Zeitung* for August 31, 1891, some experiments which they have made with rubidium-ammonium bromide. The smallest dose which they found would produce any appreciable result was  $\frac{1}{3}$  grain. They found that the subcutaneous injection of 5 grains in a frog produced fibrillary contractions at the point of application, which soon extended to the other muscles of the body and produced convulsions, which,

however, lasted but a few moments. And after four or five minutes the movements of the animal became sluggish and respiration weaker. The hind extremities became anesthetic, and this loss of sensibility then extended to the anterior parts, so that after twenty minutes there was anesthesia of the entire body, with the hind extremities paralytic, death resulting in about forty minutes. In larger doses these symptoms appeared more rapidly and with greater intensity.

In mammals the symptoms which followed an injection of this double salt are about the same. After the injection of fifteen grains in the rabbit, clonic convulsions occur, which, after five or ten minutes, give place to general relaxation and anesthesia, at first of the anterior and then of the hind extremities. The pupils are dilated, the pulsations of the heart more rapid, and the respiration slowed. After prolonged administration of this remedy rabbits acquire a toleration of this drug, even to larger doses, yet symptoms of marked motor ataxia are present. The authors divide the action of the bromide of rubidium and ammonium into a local and a general action. The first, less pronounced than the second, consists in a fibrillary contraction at the point of injection, or when administered internally in catarrh of the gastric mucous membrane. Among the general actions, the most marked is its action on the respiratory center. In rabbits it produces the characteristic periodical respiration described by Biot. It also produces anesthesia of the cornea and of the mucous membrane of the mouth, with marked modifications of the spinal reflexes, which are first increased in intensity and then decreased, and then finally abolished. The activity of the heart is at first increased and then decreased. After large doses temperature and body-weight steadily decrease.—*Therapeutic Gazette*.

**A CASE OF SPURIOUS PREGNANCY.**—On May 10, 1891, I was called in haste to see Mrs. R., aged thirty-two, a woman of large stature, well nourished, and of American descent. On arriving I found her, as I supposed, in labor. I at once asked her whether she thought her time was up and when she thought she had conceived. She could only date her time from the first fetal movement, but she insisted that her time was up. My questions revealed another fact. I found she had menstruated regularly every month; also she told me she had consulted another physician, and he said she was pregnant, and the cause of hemorrhage was a placenta previa; so I decided to make a digital examination, which gave me no satisfaction. The pains kept up,

seemingly doing her no good, so I concluded to give her an eighth of a grain of morphine sulphate, after which all pains ceased. I found at this visit that the abdomen was prominent and that the areolæ were altered, and she said she felt fetal movement. Her breasts were enlarged and milk was oozing out. I left her three or four one-eighth-grain doses of morphine sulphate, and told the family to let me hear from her later. I did not hear any thing of her until July 25th, when her husband came to my office for some treatment. At this time she complained of her kidneys and a general weakness. I prescribed for her, and heard nothing of her until September 6th. On that date her husband came hastily after me and said that his wife was in labor. I found her suffering as before, and there could hardly be any of the more apparent symptoms of pregnancy present than were present in this case at that time, with the exception that the abdomen was not so prominent as I had found it on the 10th day of May. I made another external examination, which revealed nothing, so I made a vaginal examination, which satisfied me she was not pregnant, from the fact of finding the uterus almost normal in size and a profuse leucorrhœal discharge. On further questioning my patient, I find she has but one child, a boy now thirteen years old; she also tells me her health has been poor ever since the birth of this child, and that physicians have told her if she gave birth to another child her health would be restored. She has been very anxious to give birth to another child, and I think her overanxiety to conceive is the cause of this spurious pregnancy. From the first time I saw this woman up to the present time she has had implicit confidence in me, so I had no trouble in changing her mind, and since September 6th she has been doing her housework and goes visiting without any inconvenience or pains. All symptoms of pregnancy have disappeared. I am treating her for her local trouble, which seems to be kindly yielding.—*Dr. W. M. Craig, in New York Medical Journal*.

**OLIVE OIL IN THE TREATMENT OF GALL-STONE COLIC.**—A collective investigation in reference to the use of olive oil in biliary colic has recently been made by the Therapeutic Section of the Philadelphia Polyclinic Medical Society. Of fifty-four cases of gall-stone colic in which this method of treatment was used, the result was as follows: two died; in three negative results were obtained; and in fifty, or 98 per cent, positive relief was afforded—results which must be regarded as satisfactory, more especially as one patient who died was



suffering from adhesive obstruction of the bile ducts, and two of the observers stated that they had treated forty other cases of biliary colic without a failure, but of which they had kept no record. The *rationale* of the treatment, according to Dr. Rosenberg's experiments, is that it largely increases the quantity of bile secreted, while at the same time it diminishes its consistency; but it is reasonable to believe that the beneficial influence of oil consists not so much in dissolving the biliary concretions as in increasing the biliary excretion, in flushing, and in lubricating and washing out the passages of the liver. The dose of olive oil varied from a dessert-spoonful to a pint.—*London Lancet*.

THE TERM "DERMATOL."—"Dermatol" is the empirical term attached by the *Hochster Farbwerke*, Germany, to the subgallate of bismuth prepared by them as a substitute for iodoform. It is asserted to have a strong claim upon specialists in skin diseases on account of its anti-bacterial, astringent, and drying properties; but let us suppose that those specialists do not adopt it, but that the gynecologists, for example, find in it unexploited advantages, how meaningless becomes the term "dermatol"! And, further, to follow the line of criticism marked out in a recent issue of the *Pharmaceutische Zeitung*, if dermatol prove to be all that its promoters allege the results might be unfortunate. Other products might then be pushed into the market by the manufacturers, and we might be offered a gynecol for the use of uterine specialists, and a chirurgol for surgeons, and nothing seems to stand in the way of baptizing our old stand-by, the subnitrate of bismuth or some combination thereof, under some new name like gastrol or stomachol. Rival houses might then be seen competing for the good-will of our eye doctors, one with an ophthalmogol and another with an opticol. Even the *Hochster Farbwerke* should be willing after this to acknowledge that the *reductio ad absurdum* has been brought home to them.—*N. Y. Medical Journal*.

ARTIFICIAL CORNEA.—The *Berlin Klin. Wochenschrift* publishes a seventh case of transplantation of cornea by Professor V. Hippel, of Königsberg. There was a dark brown central decoloration of the cornea, three millimeters in diameter, and reaching down to the membrane of Descemet, which had been caused by the action of nitrate of silver. Cocaine having been applied, the non-transparent part of the cornea down to the membrane of Descemet was cut into by a little trephine, the crown of which was four millimeters in diameter, and

carefully removed. The author then excised by the same means a similar piece from the whole thickness of the cornea in a young rabbit, and transplanted this to the eye of his patient. It filled the wound exactly, and was on a level with the rest of the cornea. Iodoform was applied, and both eyes were bandaged. Healing proceeded without any trouble, and in six weeks the patient was discharged with a completely transparent cornea.—*London Lancet*.

ETHERIZATION IN CROUP.—By the means of incubation and tracheotomy, the mortality in croup has been very much lowered, but the necessary instruments and the ability to use them are not possessed by every general practitioner, so that the discovery of any new method which offers a hope of assistance in tiding over the critical period in this disease is received with interest. Dr. Betz, in the *Centralblatt für die gesammte Therapie*, reports a case of laryngeal croup in which the patient, a child thirteen months old, was in imminent danger of suffocation, and, the means not being at hand for surgical interference, etherization was resorted to with success. Three or four drops of a mixture of three parts of sulphuric ether and one part each of acetic ether and menthol were given by inhalation every half hour. For four hours the child was kept under light narcosis, and at the end of eight hours the improvement was so great that there was no necessity for an operation. The author has since treated successfully two other cases of a similar degree of severity.—*New York Medical Journal*.

AN OPERATION FOR TETANOID CONVULSIONS.—The *Centralblatt für Klinische Medizin* refers to a case of Mr. T. R. Ronaldson's, recorded in the *Edinburgh Medical Journal*, in which a perfectly healthy child was attacked with tetanus on the eleventh day after birth. The birth had been a normal one, except that the child had a very thick umbilical cord. On examination the stump was found discolored and foul-smelling. Symptoms of inflammation had not been present. Frequent washings with a corrosive-sublimate solution were carried out, and every thing was done to prevent a recurrence of the convulsions, but without avail. On the twenty-third day the author performed excision of the navel, with the result of the gradual diminution of the frequency of the attacks. By the end of the seventh week the convulsions had entirely disappeared, and the child was restored to perfect health. There were no micro-organisms found in the excised umbilical stump.—*Ibid*.

# The American Practitioner and News

"NEC TENUI PENNÂ."

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D. W. YANDELL, M. D., }  
H. A. COTTELL, M. D., } - - - Editors.

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## THE ITCH FOR HONORS.

The Record of December 12th quotes with fitting comment a paragraph from the London Lancet, wherein the editor heralds the fact that several medical men have this year been elected to the office of Mayor in England and Scotland. The Lancet says:

"The detractors of the medical profession, and those who love to represent it as losing influence, should take into their consideration the remarkable list of medical mayors which we published last week. The following fourteen towns have chosen members of the medical profession to fill the civic chair for the ensuing twelve months: Brighton, Bedford, Lymington, Manchester, Barnsley, Bury, Stratford-on-Avon, Bridport, Chichester, Saffron Walden, Montgomery, Yeovil, Bristol, and Edinburgh. Never before now has a medical man been a Lord Provost of Edinburgh. Now he is not merely a medical man, but an anatomist of standing, and one learned above most in the sanitary side of medicine. Not the least instructive feature in the above list is the illustration it affords of the fact that one man can do so many different things well, and in a way to gain distinction among his fellow-men."

And upon this the Record says:

"The more rewards a profession offers the higher will be the class of men who enter it, and we trust that in time it may be possible in this country for a physician to attain political honors without loss of dignity or self-respect. At present it is rather difficult. Since the early days of our country there has never been a medical man of acknowledged pre-eminence who has held a great public office, except possibly a governorship."

The desire of medical men for notoriety is a weakness that they must own with other mor-

tals, and the average American physician, it is fair to say, is neither better nor worse in this respect than our English brothers of the guild. But the situation in the two countries is quite unlike. In England there is a hereditary aristocracy, and the chief aim of the English commoner (Mr. Gladstone and many others being exceptions) is to do great things, that he may mount on a ladder of decorations to a peerage, and thus by toil, energy, and talent gain a place side by side with those who were born great. The mild decoration of knighthood has been and is worn contentedly by many eminent English physicians and surgeons, but the title "Sir" has never sufficed for the grander medical swells, who, as all the world knows, are moving heaven and earth to gain the peerage. Every now and then an English editor scents the odor of the expected honor, and devotes some shrewdly constructed paragraphs to the question; and seemingly no sign which would appear by any reading to be symptomatic of professional elevation in the social scale escapes the eyes of the Argues of the press, as witness the above.

In America the case is very simple. The only aristocracy we have is the self-constituted "best" who have acquired or inherited wealth. They are sometimes educated, cultivated, and noble men and women, and sometimes distinctly otherwise. The American doctor, who, in addition to the life of labor and self-sacrifice which must be his, exhibits culture and sterling worth of character, will always command the respect and esteem of the best people in his corner of the world; and if, which almost never happens in legitimate practice, he grow wealthy, he may play the nabob, and practice exclusivism with pork-packers, railroad kings, and merchant princes. Aspiration to political honors with him is simply beside the question, since politics is a profession with us, and no man with a living to make can hope to practice successfully two professions. Political offices in a minor degree may be and are now and then properly conferred upon certain old or rich and retired members of the guild, but the working doctor (certain worthy school trustees, municipal aldermen and councilmen excepted) would not dare to steer or let drift his craft into the maelstrom of American politics.



## MEDICAL RECRUITS FOR THE U. S. ARMY.

We are in receipt of the following notice, which doubtless will be read with interest by many an aspiring young M.D.:

"An *Army Medical Board* will be in session in Chicago, Ill., during February, 1892, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies.

"Persons desiring to present themselves for examination by the Board will make application to the Secretary of War before January 15, 1892, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-one and twenty-eight years of age, and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the Board.

"Further information regarding the examinations may be obtained by addressing the Surgeon-General United States Army, Washington, D. C.

C. SUTHERLAND,  
Surgeon-General U. S. Army.

It would seem that the qualifications required of candidates go higher as the years go by. The specimens of questions used by the Examining Board are more than searching, and call for knowledge on some things that no doctor ought to be required to know. That the lines were drawn tightly last year is evidenced by the fact that out of forty-four candidates applying but five were permitted to enter the Army Medical Corps.

We are far from criticising the learned and accomplished men who constitute the Board, but beg leave to hint that while a certain degree of ignorance should disqualify a candidate for practice in any Medical Department of the Government, the Examiners should not forget that learning is not ability, and that in selecting for duty only those who know the most, those who would be of most use to the Government as practical surgeons are often discarded.

M. OLLIVER reports, in the *Union Médical*, a case of gonorrheal rheumatism in a girl five years old. The case is well authenticated, and was due to an acquired blennorrhagia.

## Notes and Queries.

**FLOATING HOSPITALS.**—The Italian Society of the Red Cross has recently been conducting some elaborate experiments to test the working of floating hospitals. In countries where water communication is complete well-equipped hospitals on barges might be of very great service, especially in time of war.

The presidents of the Red Cross and Italian Rowing Club, with Capt. Olivari, of the Italian navy, set themselves to the task, first by forming a floating hospital out of the barges employed on the main waterways for the transport of combustibles; then, having got their flotilla in working order, they launched it on the Lago Maggiore. Passing thence by canal to Milan, it anchored at the Porta Ticinese, and was there visited by a large number of citizens. It is composed of three barges, two of them fitted up for the accommodation of the wounded, and the third for a pharmacy, a kitchen, and the necessary stores. Of the two hospital barges, one is set apart for wounded officers, the other for wounded soldiers of the line; the two containing each twenty-four beds at present, but capable of including comfortably thirty-six each. These beds are partly on the fracture-board system, partly supported upon network of metal, and are all furnished with mattresses and pillows stuffed with *zostera marina* (dried seaweed), which has the twofold advantage of being non-combustible and anti-septic. Every night requisite is conveniently at hand, and ventilation is secured by an ingenious canvas awning, which gives passage to a continuous circulation of air while protecting the patient from draughts. The flotilla is lighted with oil lamps, and the barge reserved for the wounded officers has accommodation at the prow for the *personnel*, superior and inferior. The store barge consists of a dispensary, an *armamentarium chirurgicum*, a provision magazine with ice-machines, and a spacious kitchen, capable of supplying two hundred and fifty mouths. There is also a complete system for storing and keeping cool and pure a perennial water supply—a system due to the Cavaliere Borroni, Secretary to the Milanese Committee of the Red Cross. The flotilla is

composed of nine barges in all; the three above described having been sent down to Milan for exhibition from the Lago Maggiore, while the remaining six are in dock at Arona, upon the southern extremity of the lake. These barges are moved on the lake by tugs, on the rivers by the current, on the canals by towing-horses. From Milan the flotilla proceeded by canal to Pavia, and from Pavia down stream to Piacenza, at every station commanding the highest admiration. The experiment—the first of its kind ever made—is a worthy complement to the mountain ambulances of the Italian Red Cross Association.—*Boston Medical and Surgical Journal*.

**VIRCHOW TO HIS FRIENDS.**—The following is a translation of the circular note sent by Virchow in acknowledgment of the congratulatory letters and telegrams received by him on the occasion of his birthday:

"The close of the seventieth year of my life has been to my friends an occasion of greater joy than to myself. Age, even when its full burden is not felt, counsels resignation. My friends have nevertheless wished me, on this my birthday, to take a general survey of my past life, my struggles, my work, my successes. They have carried their point.

"From almost every part of the world have come to me the most hearty greetings; from many have come splendid gifts; from not a few high, even the highest honors. A whole series of festal days has passed before I have been able even to read all the letters and documents that have been received, or to obtain a realizing sense of the great volume of esteem and attachment which has been poured in upon me. Playmates of my early youth, schoolmates of the student days, fellow-workers from all sides and all lands, even the youngest scholars in the work-shops (*Arbeitsstätt*) have come to me with their words of congratulation.

"It is impossible for me to thank, as I should like, each individual and each association, and to say to them all how happy and honored I feel that so much friendship, so much love, and so much kindness, is left to me, and to say also how earnestly I desire that none of this

may be lost to me during the time which yet remains for me to live. May it, therefore, be allowed me to express my feelings in this general letter.

"I will add but one thing more. Let my friends rest assured that their kindly recognition will not spoil my heart, and that I cherish no greater hope than that it will be permitted me to devote all my powers yet for a time in the old way to the service of science and of humanity. RUDOLF VIRCHOW."

**VIVE LA MORT!**—They do every thing well and in the most airy and charming manner in Paris, as witness the death of a certain Dr. Bergeron there lately. He had had all he wanted of this earthly existence, life had become to him "as tedious as a twice-told tale," and so naturally he thought he would throw it off. He might have shot himself, or cut his throat, or jumped off the Eiffel Tower, or shut himself up with a charcoal stove, but he didn't. Anybody with the most ordinary intellect, even a German, could kill himself in that way—it would be too common—the papers would hardly notice his death, and there would be no sensation at all. So he bided his time, serenely confident that the opportunity would come, as it always does to the one who can wait.

It came the other day. He was sitting one evening in a *cab* with his mistress and a male friend, when the latter happened to complain of a sore throat. Here, at last, was the opportunity so patiently waited for, and he embraced it at once in the true Parisian style. "Just let me give you a little aconite, old fellow," said he, "there's nothing like that for knocking spots out of a sore throat." So he wrote a prescription for tincture of aconite and sent to a neighboring drug store to have it filled. He put a couple of drops in a glass of water telling his friend to sip it occasionally until he had taken it all, and then poured out about half an ounce in his own glass and drained it off, with an indulgent smile at the fears of his mistress, who seemed to think that it might be a little too much for a man in ordinary health.

And he presently died, and the papers devoted several columns to a description of the way he did it.—*Medical Record*.



*Editors American Practitioner and News :*

**ASSOCIATION OF MILITARY SURGEONS.**—The second annual session of the Association of Military Surgeons of the National Guard of the United States will be held at St. Louis, April 19, 20, and 21, 1892. An interesting programme of addresses by prominent surgeons of the National Guard and the United States Army has been arranged, and a goodly number of scientific papers on Military and Accidental Surgery will be read and discussed, and all matters pertaining to the health, usefulness, and welfare of the civilian soldiers will receive attention.

The afternoon of one day will be set apart for an object lesson from the "Manual Drill" by Hospital Corps of the United States Army detailed for this purpose. This will be a very important as well as instructive feature of this session. The evenings will be given up to entertainments, receptions, and banquets, which the medical profession and generous citizens of St. Louis have planned for their distinguished guests. The Committee of Arrangements have received the assurance that transportation will be satisfactorily reduced on all railroads and steamboats to and from this meeting. The several hotels have promised a low and uniform rate, which will be announced at an early date. It is anticipated that not less than five hundred Surgeons and Assistant Surgeons of the National Guard of the United States will be in attendance, to all of whom the Committee of Arrangements extend a most cordial welcome.

EUSTATHIUS CHANCELLOR,  
*Chairman Committee of Arrangements.*

THE semi-annual meeting of the Mitchell District Medical Society was held at Columbus, Indiana, Thursday and Friday, December 17 and 18, 1891. Papers were read, as follows:

Is the Treatment of Phthisis Pulmonalis a Success? S. A. Rariden, M. D., Bedford.

The Respiratory Complications of the Disease called La Grippe. Theodore Potter, M. D., Indianapolis.

The Use of Alcohol in the Practice of Medicine. Homer J. Hall, M. D., Franklin.

Tetanus. J. D. Simpson, M. D., Bedford.

Intubation of the Larynx. Joseph Eichberg, M. D., Cincinnati.

Intubation in Diphtheria. P. R. Taylor, M. D., Louisville.

The Enlarged Tonsil. D. S. Reynolds, M. D., Louisville.

Surgical Treatment for Nasal and Nasal-Pharyngeal Reflexes. L. C. Cline, M. D., Indianapolis.

Correct Pronunciation of Medical Terms. M. N. Elrod, M. D., Hartsville.

Public Address. G. C. Smythe, A. M., M. D., ex-President Indiana State Medical Society, Greencastle.

The Necessity of Surgical Knowledge in General Practice. J. R. Jenkins, M. D., Shelbyville.

Posterior Spinal Sclerosis. H. M. Lash, M. D., Indianapolis.

The Pathology of Nervous Exhaustion. A. B. Richardson, M. D., Cincinnati.

Abdominal Section with Report of Cases. Wm. H. Wathen, M. D., Louisville.

Recurrent Pelvic Inflammation. L. H. Dunning, M. D., Indianapolis.

Hemorrhage at or near the Menopause. Chas. A. L. Reed, M. D., Cincinnati.

Antiseptics in Rectal Surgery. Joseph M. Mathews, M. D., Louisville.

Reflex Disturbances from Rectal Disease. George J. Cook, M. D. Indianapolis.

Skin-Grafting. A. M. Owen, M. D., Evansville.

Remarks on the Treatment of Urethral Stricture in the Male. W. N. Wishard, M. D., Indianapolis.

The Radical Treatment of Inguinal Hernia. A. J. Banker, M. D., Columbus.

THE ANTIKAMNIA POISONING CASE reported with editorial comments in our issue of September 12th calls forth the following judicious remarks from the distinguished editor of the New York Medical Journal :

"The composition of antikamnia is not definitely known, but the editorial note in the Practitioner and News gives an apparent acceptance of an analysis of the drug, published in the May issue of the Druggists' Circular, which makes it consist of nearly eight parts of

acetanilide and rather more than two parts of bicarbonate of sodium. Assuming that this analysis is approximately correct, the amount of acetanilide contained in the supposed lethal dose was not far from eighteen grains. This is not quite a double dose, ten grains being commonly regarded as the full dose for an adult. It is difficult to connect the almost instantaneous and rapidly progressive poisoning above recorded with a dose no larger than that stated. The questions of idiosyncrasy, of possible undiscovered organic disease, of unknown quantities of the drug previously taken, with a sudden cumulative action, and of the formation of some substitution product, such as not infrequently forms in this and other aniline derivatives, suggest themselves and make it desirable that a full investigation should have been made. As the matter now rests, a comment made by the editor is most pertinent, namely, that antikamnia should be listed among the poisonous drugs, and that it should not be promiscuously and non-professionally prescribed. The editor further and very correctly, we think, inveighs against the use of powerful agents of undeclared composition as apt to lead up to just such calamitous results as that related."

**OPERATIVE TREATMENT OF SPINAL CARIES.**  
At the recent meeting of the American Orthopedic Association, Dr. DeForest Willard, Philadelphia, Pa., read a paper on this subject. His conclusions are:

1. Recumbency, extension, mechanical support, suspension and support of the diseased vertebræ till thorough ankylosis has resulted, are exceedingly important preventives of and additions to operative procedures.

2. Dormant and caseating foci may well be treated on the expectant plan.

A. (1) Liquefactive and caseating collections should be tested with an aspirator and injected with iodoform emulsion, the operation being repeated until pus is discovered.

(2) If sero-purulent fluid is drawn, injections may still be relied upon to assist the system in conquering and limiting the tuberculous process.

(3) When true pus is present the abscess should be incised, the cavity washed out by a

long-continued flow of hot sublimate solution, but manipulation should not be practiced upon the walls of the sac, lest a fissure be occasioned and entrance of tubercular poison into the system be facilitated. The incision should be carefully sutured, and from thirty to sixty grains of iodoform, dissolved in boiled olive oil, injected and retained in the cavity.

(4) When the situation of the abscess is in the lumbar region, and the case permits of thorough removal of the sac, incision of the abscess and excision of its walls with knife, scoop, and scissors, together with the removal of all tuberculous material, should be practiced.

(5) When excision of the wall is impossible, free incision and drainage, coupled with iodoform injections, are palliative, and will assist in shortening the removal of the diseased tissues.

(6) Drainage-tubes should not be retained longer than is necessary to form a track for pus.

B. Excision of diseased bone tissue is feasible when it is situated in the arches and occasionally in the lumbar region; when the articular and transverse processes or the side of the vertebral body is affected. It is an operation very limited in its scope, and should be practiced only in the cases mentioned. For the purposes of drainage, however, it is beneficial.

C. (1) In the majority of cases of pressure paralysis recovery takes place after extension and mechanical treatment.

(2) Removal of the laminæ for the relief of pressure paralysis is only to be employed after the thorough trial and failure of long-continued and horizontal extension and fixation, unless dissolution is rapidly threatened.

(3) Operation for the removal of the laminæ is a troublesome one, except in the upper dorsal region, and entails considerable risk to the patient.

(4) In caries of the arches, when pressure is posterior to the cord, it is justifiable.

(5) When the pressure is anterior, either from bony deposit or from caseous material, or from tubercular infiltration or inflammatory deposit, no permanent benefit will be secured even though temporary gain is apparent.



**THE PHYSIQUE OF AMERICAN WOMEN.** — Prof. Bowditch has been inquiring into "the Physique of Women in Massachusetts." He has made accurate observations of height, weight, sitting height, and stretch of arms, of over 1,100 women. He found the average height of 1,107 women (without shoes), aged seventeen and upward, to be 158.76 centimeters. Dr. Sargent's average of 1,835 observations, the ages ranging from sixteen to twenty-six, is slightly higher; and Mr. Galton's 770 measurements of English women, from twenty-three to fifty-one years of age, give also a higher average. In the latter case the difference may be partly racial, but most of it must be due to the lower ages of some of the American subjects. The average weight of Dr. Bowditch's 1,105 cases, in ordinary in-door clothing, was 56.51 kilograms. A comparison with Galton's 276 observations (aged twenty-three to twenty-six) shows that the range of weights is greater in the Americans, and also "seems to show that there is little difference between the shortest as well as between the lightest women of the two nationalities, but that the tallest English women surpass the tallest American women in height, while the heaviest American women exceed in weight the heaviest English women." As to sitting height, we need only record that "women appear relatively longer in the body and shorter in the legs than men." Finally, it appears that the popular notion that the arm stretch is equal to the height is much more nearly true for women than for men, Dr. Sargent's measurements giving 100.8 : 100 for the former, 102.8 : 100 for the latter.—*Medical Record*.

**BENZINE AS A PREVENTIVE OF TRICHINOSIS.** Dr. Putter, jr., of Stralsund, reports in the *Deutsche Medicinische Wochenschrift* on the favorable effect of benzine after the consumption of pork full of trichinæ. A pig had just been killed, and some hours after twenty-seven people had eaten of the meat, the inspector informed the owner that the animal had been suffering from trichinosis. All the twenty-seven people, adults, and children from fourteen to seventeen years, had boiled pork for dinner; the wife of the owner and four other women,

in making sausages, had repeatedly tasted the raw material. Dr. Putter was informed of the mishap on the same evening, and prescribed two hundred and seventy gelatine capsules, each to contain seven and a half grains of benzine; each person to take five capsules the next morning before breakfast, and an hour later a large teaspoonful of pulv. rhei and pulv. glycerrhizæ co. in equal parts—the children, of course, less in proportion. The same dose was to be repeated in the afternoon, and the purgative only the next day. The benzine was well borne by all the patients, a few only complaining of *malaise* and eructations, but none of them vomited. Eight months later all the twenty-seven people were still perfectly healthy, as were the women who had tasted the raw sausages. Dr. Putter is so convinced that his treatment alone prevented the people from being attacked by trichinosis that he recommends it warmly in all similar cases.—*London Lancet*.

**THE NEXT INTERNATIONAL MEDICAL CONGRESS** meets in Rome in 1893, and probably in the last fortnight in September. Prof. Bacelli has been elected president, and Prof. Maragliano, of Genoa, secretary. The sections are twelve in number; and, as the results of the various ballots, the following gentlemen have been elected presidents: Anatomy, Prof. Antonelli; Physiology, Profs. Albini and Albertoni; Pathology, Profs. Bizzozero and Foà; Pharmacology, Prof. Cervello; Clinical Medicine, Profs. Bacelli, Maragliano, Murri, and Bozzolo; Surgery, Prof. Bottini; Obstetrics, Prof. Morisani; Psychiatry, Profs. Morselli and Tamburini; Ophthalmology, Profs. Devincenzi and Secondi; Dermo-Syphilopathy, Profs. Campana and Barduzzi; Forensic Medicine, Prof. Tamapia; Hygiene, Profs. Pagliani, Celli, and Canalis.—*Medical Record*.

**DERMATITIS CAUSED BY RESORCIN.**—Dr. A. Ravogli (*Vratch*, No. 42, 1890) reports a series of cases in which the local application of resorcin was followed by dermatitis. The resorcin had been given as a salve, half a dram to one ounce of vaseline, or as a wash of one and one half per cent.

## A. D. 2000.

Boston Medical and Surgical Journal.

Like Bellamy's hero, I overdosed  
 With some seductive drug,  
 And snoozed for more than a century  
 Buried in cellar snug;  
 Till an *ex post facto* Doctor man  
 Into my quarters dug,  
 And injected some hypnotic germs  
 From a medical humbug.

He brushed off the dust of an hundred years,  
 And gave me a cordial strong;  
 From all your surroundings it appears  
 That you must have lain here long;  
 You're clad in XIXth Century gear  
 If my judgment is not wrong;  
 'T is well I found you, for my compeers  
 Would have roasted you ere long.

"You see, we're working an arsenic mine  
 In the graveyards of Boston town;  
 The corpses are solid with metal fine,  
 And we reduce it down.  
 So solid it is that they often shine  
 With crystals red, green, and brown—  
 Arsenic from sternum through to spine.  
 From ossa calces to crown.

"Our histories tell that in days of yore  
 The populace all fell sick  
 With illnesses which the doctors swore  
 Were due to arsenic.  
 Their glands, in a fashion unknown before,  
 Absorbed the poison quick;  
 From papered wall and carpeted floor  
 They got it 'fast and thick.'

"From fabrics yellow, red, green, or blue;  
 From clothing and furniture plush;  
 From whatever possessed a brilliant hue,  
 Not excepting a maiden's blush;  
 From the soot and smoke of the chimney flue;  
 From plain old Puritan mush;  
 From legumes, roots, tubers, and canned goods, too;  
 From the fruit of vine and bush.

"For all of the neighboring country through  
 The farmers could be seen  
 Besprinkling whatever crop they grew  
 With deadly Paris green.  
 It would kill the potato-bug, they knew,  
 Far better than kerosene;  
 Gipsy-moths and flies and rose-bugs, too,  
 It killed them all off clean.

"The dust which was stirred by wind and sun  
 Bore to town a fresh supply.  
 And marketmen brought it in by the ton  
 For their customers to buy.  
 No wonder the mischief by arsenic done  
 Caused a great mortality."  
 Here he paused and winked, "You know, my son,  
 There's arsenic in every *dog*."

THE YANKEE MEDICAL STUDENT.—The London Hospital Gazette thinks that the Yankee medical student has not very much to be thankful for. First of all, the medical "diploma mills" turn out their thousands of ill-trained and indifferently educated youths to take part in the professional struggle for existence, and then no kind legislation has interfered for the purposes of restricting the practice of medicine to native graduates. And now Mr. McKinley has got passed a tariff, in virtue of which the tax on microscopes has been raised sixty per cent, so that an instrument which costs ninety dollars in Germany will at wholesale cost one hundred and fifty dollars in the States. This will hardly have the effect of stimulating microscopical work, and the cost will of course increase *pari passu* with the minuteness of the object to be magnified, seeing that the higher the power the greater the initial cost, and therefore the more crushing the protective duty.

THE LEPERS IN SIBERIA.—It is probably well known that the unfavorable conditions of existence in that vast inhospitable country lend themselves in marked degree to the propagation of the terrible scourge of leprosy, and the praise of attempting seriously to diminish it must be accorded to the heroic labors of these ladies. The interest which was recently aroused in the condition of lepers in South Africa by the melancholy tale of suffering published in one of the magazines will not have been forgotten, but the story of the poor outcasts on the dreary wastes of Siberia is, if possible, a sadder one. Miss Marsden, a Red Cross sister, who has proved her devotion on the battlefields of the Russo-Turkish war, accompanied by Miss Field, who has the advantage of being entirely familiar with the Russian language, began this work almost without any aid, except such as was afforded them in the way of facilities in traveling by the kindness of Russian officials. They chiefly occupied themselves in administering attendance and such little comforts as were obtainable to the patients whom they visited, but after much service of this kind, rendered in circumstances of the greatest personal hardships and discom-

STRYCHNINE AS A HEART STIMULANT.—Strychnine is regarded as the best heart stimulant in weakness of the heart. The heart-beat becomes strong, the small arteries contract, and the blood-pressure increases.



fort, which would have daunted less noble-minded women, they found that these labors, however useful in individual instances, were of little avail unless more extensive measures could be adopted. The poor people expressed an anxious desire to have a hospital provided for the treatment of their disease, and this was of course beyond the personal resources of their benefactors to establish. Miss Field has now returned to this country to plead the cause of the lepers, with a view of enabling such a hospital to be founded, and she hopes to rejoin Miss Marsden shortly with the means to have this accomplished.—*Hugh Lane, in London Lancet.*

**WHOOING COUGH TREATED WITH OUBAINE.**—Dr. Lindsay Porteous, in the New York Medical Journal, gives the result of some cases of whooping cough in which he administered ouabine. The alkaloid is obtained by crystallization from a watery extract of the roots of the oubaïo, the juice of the plant being used as an arrow-poison by the Somalis of East Africa. According to Dr. Gemmell, of Glasgow, who has written on this treatment, the standard dose for a child under five years is  $\frac{1}{1000}$  grain every third hour in solution. Dr. Gemmell believes the drug to be of marked benefit in all stages of the disease, and Dr. Porteous' experience is much the same. Its action is not cumulative, but it promotes the action of the skin after three or four days, and increases the flow of urine, while during its administration the pulse, temperature, and respiration are slightly lower.—*London Lancet.*

**WHAT ELIXIR THE BEST?**—A correspondent sends the subjoined clipping, with the facetious suggestion that it might make a good introduction to a flamboyant advertisement: "Napoleon's disaster at the battle of Leipzig is popularly set down to his having eaten a bun in a hurry, and so brought on dyspepsia; but it would be a very curious page of history if we could learn how many wars, how much bloodshed, and how much cruelty have had their origin in imperfect action of the bowels. Washington Irving, in his Lives of the Caliphs, tells of a certain emir named Al Hejagi who suf-

fered for many years from dyspepsia and abdominal pains, and this wretched man distinguished himself, perhaps above all other rulers who ever lived, in the enormous number of people whom he sentenced to imprisonment and death. He is said to have caused the death of no less than 120,000 persons, besides those who fell in battle, and to have left 50,000 in prison when he died himself. How much of all this misery might have been averted by the judicious use of mild aperients it is as impossible for any one now to tell as it is to estimate the debt of gratitude which Europe owes to the physician of Louis XIV for the care he took of the digestive organs of that august monarch."—*New York Medical Record.*

**A SAD MISTAKE.**—A writer in the Hospitals Gazette quotes the following story, said to have been related by Sir Richard Quain, M. D., which perhaps points a moral. He was attending the wife of an old patient, and at one of his visits the husband set him thinking by saying to the doctor, "I greatly appreciate the anxiety you feel for my poor wife, but do not let her see it again, for after you left the room she asked if you were the undertaker." As Dr. Quain rather prided himself on having a good bedside manner he felt that he was taken down a peg or two.

**WIRING THE VERTEBRÆ.**—Dr. Harda, of Texas, has recently suggested that the spinous processes of the vertebræ should be wired together in Pott's disease in order more effectually to secure the immobility which is the object of the various supports which have been suggested for this condition. He has recently carried out a similar procedure in a case of fractured spine. His method is to carry a figure-of-eight loop around the spinous processes which have been exposed by a skin incision and separation of the muscles clothing them. The operation is said to be nearly bloodless, and, with antiseptic precautions, quite safe, but we doubt whether its advantages are such as to give it a preference over the older although less radical treatment by mechanical means, which does not involve operation.—*London Lancet.*

**SALICYLBROMANILIDE A FRAUD.**—Antinervine was the name under which Radlauer, a Berlin apothecary, launched, some years ago, what pretended to be a new analgesic and antipyretic, the chemical designation for which, in conformity with its alleged constitution, was given as salicylbromanilide. The inference was that this body was analogous to bromacetanilide, the salicylic acid residue having taken the place of the acetyl residue. Having become suspicious of this substance, E. Ritsert subjected the same to a rigid examination and found, not a chemical unit, but a mechanical mixture of salicylic acid, ammonium bromide, and acetanilide. A number of samples, some older and some new ones, were analyzed and gave approximately the following composition (Western Druggist):

Salicylic acid.....	25;
Ammonium bromide.....	25;
Acetanilide .....	50.

**A NEW BACTERIAL PRODUCT FROM TYPHOID GERMS.**—At the recent meeting of the American Physiological Society Dr. V. C. Vaughan, of Ann Arbor, Mich., read an abstract from a paper on a new bacterial product which he had obtained from typhoid germs, which had something of a definite chemical composition. It dissolves in water and forms an acid solution, and contains no sulphur. The question for him to decide is, whether it is a bacterial product or whether it is not a part of the bacterial cell. This new substance is highly poisonous. When injected into animals it causes a rise of temperature and death. Ten milligrams injected into a guinea-pig caused its death in half an hour.

**NAPHTHALINE AS A VERMIFUGE.**—According Dr. Mirovich, of Bielsk, naphthaline is an admirable remedy not only for ascarides but for tapeworm. He considers it much more certain and far less poisonous than most other vermifuges. For grown-up people he prescribes a fifteen-grain powder, to be followed immediately by two ounces of castor oil. For two days before this dose the patient is directed to live on salt, acid and highly seasoned food, then the naphthaline is given fasting early the following morning. In the case of children

naphthaline may be mixed with castor oil, flavored with a drop or two of bergamot. In all the cases in which this plan was carried out, including some in which ordinary means had failed, the whole tenia was expelled with its head after the first dose.—*London Lancet*.

## SPECIAL NOTICES.

REED & CARNICK, NEW YORK:

*Dear Sirs:*—I have had a very agreeable experience with your Soluble Food, my little boy of twenty months having consumed over eighty pounds of it since October last. I had tried nearly every form of artificial feeding and the prepared foods, none of which were assimilated. Finally he was put upon Soluble Food, and since that time he has thrived and grown hearty.

I notice that you have lately put upon the market several new specialties. If you will kindly send samples I shall be glad to make trials of them in my practice, and if I find each in its sphere as valuable as Soluble Food, you may be assured that I shall heartily commend them. Very truly yours,

E. W. MURRAY, M. D.

REDFIELD, SOUTH DAKOTA, May 21, 1891.

## CHRONIC NERVOUS HEADACHE:

R Celerina..... 6 ounces;  
Tinc. Hyoscinus.....1 ounce;  
Tinct. Gelsemium.....1 ounce.

M. et Sig. One teaspoonful taken before going to bed.

DR. M. CHAPER, Grenoble, France, says: "I have never known a soporific so efficacious as Bromidia, except morphine, and morphine is not so agreeable and has inconveniences which I have not discovered in Bromidia. I have used this latter preparation frequently, and it has never failed in producing the desired effect.

A. R. DE ESCARRA, M. D., of Paris, France, says: With S. H. Kennedy's Extract of *Pinus Canadensis* the results have exceeded my expectations. In three cases of metritis, accompanied by abundant and very viscous secretions, I was able to note the improvement almost at a glance, and in one case the complete cure of these affections by using the pure *Pinus Canadensis* on hydropathic cotton plugs. In two cases of inveterate leucorrhoea, which resisted various well-chosen remedies, the improvement was truly marvelous; so much so, that I asked myself whether I had not fallen on a lucky combination. This, time will decide. From that time I have always recommended the *Pinus Canadensis* in all cases where I thought its action was clearly indicated.

## PERSPIRATION OF THE FEET.

Glycerine.....1 oz;  
Kennedy's EXT. *Pinus Can*.....1 oz;  
Aqua.....2 oz;  
Essence of Bergamot.....2 drms.

Mix and apply twice each day. The results are surprisingly rapid and happy.



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